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MARKET FORECAST

IT Customer Services Market Analysis, Europe 1996-2001

Customer Services Programme – Europe

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IT Customer Services Market Analysis Europe 1996-2001

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Abstract

Despite a brighter economic outlook and a more buoyant IT industry throughout much of Europe, traditional IT customer services vendors are still adversely affected by continued decline in traditional equipment services markets. However, the evidence of this year's market analysis suggests that progress is being made in this respect.

The emergence of the Internet and Intranets as viable platforms for business applications looks set to give a healthy boost to IT services markets generally. Already demand for installation and support of dedicated Internet equipment is strong, and a broad range of Internet-related professional services is beginning to emerge. These trends will fuel growth in the customer services market over the next few years.

This report takes an in-depth look at both the demand and supply sides of the IT customer services market, and in particular:

- Describes the key market trends which will influence the customer services market in Europe over the period 1996 to 2001
- Analyses the European customer services market by industry sector, and provides supporting information on the business and IT drivers affecting major industry sectors
- Provides quantitative analyses of the customer services market in 16 individual European country markets, plus Central and Eastern Europe (expressed in local currencies and US dollars) for the period 1996 to 2001
- Contains estimates of the revenues of the leading customer services vendors in each of 16 individual European country markets, plus Eastern Europe. The chapter also contains a detailed analysis of the revenues of the top 20 customer services vendors in Europe, broken down by country and service sector.

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**Customer Services Programme —
Europe**

***IT Customer Services Market Analysis,
Europe 1996-2001***

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Table of Contents

I	Introduction	1
	A. Objectives and Scope	1
	B. Methodology	2
	C. Economic Statistics	2
	D. Report Structure	3
II	Executive Summary	5
	A. Stronger Growth Ahead as Economies Recover, New Markets Emerge	5
	B. Vendors Must Adopt A Network-Centric Services Strategy	8
	C. Vertical Market Focus Increasingly Important	9
	D. Vendors Must Return to Customer Services Basics	11
III	Customer Services Market Trends, Europe 1996-2001	13
	A. Analysis of 1996 Customer Services Market	13
	B. Market Sector Trends, 1996-2001	16
	C. Platform Trends	17
	D. Multivendor Services Trends	20
	E. Call Centre and Help Desk Trends	22
	F. The Impact of the Internet on Support Services	24
	1. Twenty-Five Per Cent of Software Support Market will be Internet-Related by 2000	24
	2. Internet will Encourage Value-Added Software Support Services	26
	3. Intranets will Fuel IT Services Market Growth	27
	G. Customer Service Principles Must Prevail	30
IV	Industry Sector Analysis	33
	A. Industry Sector Forecast, Europe 1996-2001	33
	B. Market Drivers in Banking	35
	C. Market Drivers in Insurance	39
	D. Market Drivers in Discrete Manufacturing	43
	E. Market Drivers in Process Manufacturing	46

F.	Market Drivers in Retail	49
G.	Market Drivers in Wholesale	51
H.	Market Drivers in Transportation	54

V	Market Analysis and Forecast by Country	57
A.	Changes in Country Market Analysis and Forecast Since 1995	57
B.	Country Market Database	59

VI	Competitive Analysis	77
A.	Vendor Rankings by Country	77
B.	Revenue Analysis of Top 20 European Customer Services Vendors	90

A	The Customer Services Market Defined	111
A.	INPUT's View of the Customer Services Market	111
B.	Customer Services Sectors	116
C.	Customer Services Vendors	118
D.	Customer Services Revenue Streams	118

B	Market Forecast Reconciliation	121
----------	---------------------------------------	------------

C	Exchange Rates and Inflation Assumptions	123
----------	---	------------

List of Exhibits

II

-1	European Customer Services Growth — Maintenance Vs Non-Maintenance Services, 1996-2001	6
-2	Growth of Non-Maintenance Services Sectors, Europe 1996-2001	7
-3	Organisations Seek to Adopt More Distributed IT, Europe 1995/6	8
-4	Industry Sector Forecast, Europe 1996-2001 (\$ Millions)	10

III

-1	European Customer Services Growth by Sector 1995/6 (\$ Millions)	14
-2	Total Potential Customer Services Market , Europe 1996 (\$ Millions)	15
-3	Market Sector Growth, Europe 1996-2001 (\$ Millions)	16
-4	Customer Services Platform Shifts, Europe 1996-2001	18
-5	Most Important IT-Related Issues, Europe 1995/6	19
-6	Multivendor Services as A Component of the IT Customer Services Market, Europe 1995-2000 (\$ Billions)	20
-7	Multivendor Services Market Components, Europe 1995-2000	21
-8	Help Desk Services Market, Europe 1995-2000	23
-9	Help Desk Services Market by Territory, Europe 1995-2000	23
-10	Internet Software Support Market, Europe 1995-2000	25
-11	How the Internet will Impact Traditional Support Delivery Mechanisms	26
-12	Intranet Vs Internet Market — UK, 1995-2000 (\$Bn)	28
-13	Top Three Pressures Facing User Organisations Now	31

IV

-1	Industry Sector Forecast, Europe 1996-20001 (\$m)	34
-2	Principal Business Pressures: Banking and Finance	35
-3	Most Important IT Challenges: Banking and Finance	37
-4	Importance Vs. Satisfaction with IT Functions Performed In-house: Banking and Finance	38
-5	Principal Business Pressures: Insurance	39
-6	Most Important IT Challenges: Insurance	41
-7	Importance Vs. Satisfaction with IT Functions Performed In-house: Insurance	42
-8	Principal Business Pressures: Discrete Manufacturing	43
-9	Most Important IT Challenges: Discrete Manufacturing	44
-10	Importance Vs. Satisfaction with IT Functions Performed In-house: Discrete Manufacturing	45
-11	Principal Business Pressures: Process Manufacturing	46
-12	Most Important IT Challenges: Process Manufacturing	47
-13	Importance Vs. Satisfaction with IT Functions Performed In-house: Process Manufacturing	48
-14	Principal Business Pressures: Retail	49
-15	Importance Vs. Satisfaction with IT Functions Performed In-house: Retail	50
-16	Principal Business Pressures: Wholesale	51
-17	Most Important IT Challenges: Wholesale	52
-18	Importance Vs. Satisfaction with IT Functions Performed In-house: Wholesale	53
-19	Principal Business Pressures: Transportation	54
-20	Most Important IT Challenges: Transportation	55
-21	Importance Vs. Satisfaction with IT Functions Performed In-house: Transportation	56

V

-1	Customer Services Market Forecast, Europe 1996-2000 (US\$ Millions)	59
-2	Customer Services Market Forecast, Europe 1996-2001 (ECU Millions)	59
-3	Customer Services Market Forecast, Austria 1996-2001 (Sch Millions)	60
-4	Customer Services Market Forecast, Austria 1996-2001 (US\$ Millions)	60
-5	Customer Services Market Forecast, Belgium 1996-2000 (BF Millions)	61
-6	Customer Services Market Forecast, Belgium 1996-2001 (US\$ Millions)	61

-7	Customer Services Market Forecast, Denmark 1996-2001 (DK Millions)	62
-8	Customer Services Market Forecast, Denmark 1996-2001	
-9	Customer Services Market Forecast, Eastern Europe 1996-2001 (US\$ Millions)	63
-10	Customer Services Market Forecast, Eastern Europe 1996-2001 (ECU Millions)	63
-11	Customer Services Market Forecast, Finland 1996-2001 (FM Millions)	64
-12	Customer Services Market Forecast, Finland 1996-2001 (US\$ Millions)	64
-13	Customer Services Market Forecast, France 1996-2001 (FF Millions)	65
-14	Customer Services Market Forecast, France 1996-2001 (US\$ Millions)	65
-15	Customer Services Market Forecast, Germany 1996-2001 (DM Millions)	66
-16	Customer Services Market Forecast, Germany 1996-2001 (US\$ Millions)	66
-17	Customer Services Market Forecast, Greece 1996-2001 (Dra Millions)	67
-18	Customer Services Market Forecast, Greece 1996-2001 (US\$ Millions)	67
-19	Customer Services Market Forecast, Ireland 1996-2001 (IR£ Millions)	68
-20	Customer Services Market Forecast, Ireland 1996-2001 (US\$ Millions)	68
-21	Customer Services Market Forecast, Italy 1996-2001 (Lira Billions)	69
-22	Customer Services Market Forecast, Italy 1996-2001 (Lira Billions)	69
-23	Customer Services Market Forecast, Netherlands 1996-2001 (Dfl Millions)	70
-24	Customer Services Market Forecast, Netherlands 1996-2001 (US\$ Millions)	70
-25	Customer Services Market Forecast, Norway 1996-2001 (NK Millions)	71
-26	Customer Services Market Forecast, Norway 1996-2001 (US\$ Millions)	71
-27	Customer Services Market Forecast, Portugal 1996-2001 (Esc Millions)	72
-28	Customer Services Market Forecast, Portugal 1996-2001 (US\$ Millions)	72

-29	Customer Services Market Forecast, Spain 1996-2001 (Ptas Millions)	73
-30	Customer Services Market Forecast, Spain 1996-2001 (US\$ Millions)	73
-31	Customer Services Market Forecast, Sweden 1996-2001 (SK Millions)	74
-32	Customer Services Market Forecast, Sweden 1996-2001 (US\$ Millions)	74
-33	Customer Services Market Forecast, Switzerland 1996-2001 (SF Millions)	75
-34	Customer Services Market Forecast, Switzerland 1996-2001 (US\$ Millions)	75
-35	Customer Services Market Forecast, United Kingdom 1996-2001 (£ Millions)	76
-36	Customer Services Market Forecast, United Kingdom 1996-2001 (US\$ Millions)	76

VI

-1	Customer Services Revenues, 1995 Europe (\$ Millions)	78
-2	Customer Services Revenues, 1995 France (FF Millions)	79
-3	Customer Services Revenues, 1995 Germany (DM Millions)	80
-4	Customer Services Revenues, 1995 United Kingdom (£ Millions)	81
-5	Customer Services Revenues, 1995 Italy (Lira Billions)	82
-6	Customer Services Revenues, 1995 Netherlands (Dfl Millions)	83
-7	Customer Services Revenues, 1995 Austria (Sch Millions)	84
-8	Customer Services Revenues, 1995 Belgium (BF Millions)	84
-9	Customer Services Revenues, 1995 Denmark (DK Millions)	85
-10	Customer Services Revenues, 1995 Eastern Europe (\$ Millions)	85
-11	Customer Services Revenues, 1995 Finland (FM Millions)	86
-12	Customer Services Revenues, 1995 Greece (Dra Millions)	86
-13	Customer Services Revenues, 1995 Ireland (IR£ Millions)	87
-14	Customer Services Revenues, 1995 Norway (NK Millions)	87
-15	Customer Services Revenues, 1995 Portugal (Esc Millions)	88
-16	Customer Services Revenues, 1995 Spain (Ptas Millions)	88
-17	Customer Services Revenues, 1995 Sweden (SK Millions)	89
-18	Customer Services Revenues, 1995 Switzerland (SF Millions)	89
-19	(No. 18) Amdahl — European Customer Services Revenues, 1995 (\$ Millions)	91
-20	(No. 9) AT&T (NCR) — European Customer Services Revenues, 1995 (\$ Millions)	92
-21	(No. 6) Bull — European Customer Services Revenues, 1995 (\$ Millions)	93

-22	(No. 20) Comparex — European Customer Services Revenues, 1995 (\$ Millions)	94
-23	(No. 12) CompuNet — European Customer Services Revenues, 1995 (\$ Millions)	95
-24	(No. 2) Digital — European Customer Services Revenues, 1995 (\$ Millions)	96
-25	(No. 10) Getronics — European Customer Services Revenues, 1995 (\$ Millions)	97
-26	(No. 13) Granada — European Customer Services Revenues, 1995 (\$ Millions)	98
-27	(No. 4) Hewlett Packard — European Customer Services Revenues, 1995 (\$ Millions)	99
-28	(No. 1) IBM — European Customer Services Revenues, 1995 (\$ Millions)	100
-29	(No. 7) ICL Sorbus — European Customer Services Revenues, 1995 (\$ Millions)	101
-30	(No. 5) Olivetti — European Customer Services Revenues, 1995 (\$ Millions)	102
-31	(No. 14) Rank Xerox — European Customer Services Revenues, 1995 (\$ Millions)	103
-32	(No. 3) Siemens Nixdorf — European Customer Services Revenues, 1995 (\$ Millions)	104
-33	(No. 16) StorageTek — European Customer Services Revenues, 1995 (\$ Millions)	105
-34	(No. 15) Sun Microsystems — European Customer Services Revenues, 1995 (\$ Millions)	106
-35	(No. 19) Thomainfor — European Customer Services Revenues, 1995 (\$ Millions)	107
-36	(No. 8) Unisys — European Customer Services Revenues, 1995 (\$ Millions)	108
-37	(No. 17) Wang — European Customer Services Revenues, 1995 (\$ Millions)	109

A

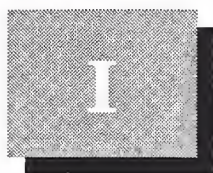
-1	Customer Services Market Structure	113
-2	Software Products Market Structure	115
-3	Customer Services Revenue Streams	119

B

-1	Customer Services Market Forecast Reconciliation by Service Sector	122
----	---	-----

C

-1	US Dollar and ECU Exchange Rates: 1996	124
----	--	-----



Introduction

A

Objectives and Scope

The purpose of this report is to present, in a single volume, a comprehensive analysis of the European market for IT customer services. The report takes an in-depth look at both the demand and supply sides of the customer services market, effectively combining and updating the *Market Trends and Forecast* and *Competitive Analysis* reports which were issued separately in 1995.

Comprehensive quantitative analyses cover Europe as a whole, plus each of 16 individual countries (and Central and Eastern Europe grouped as a single territory). Analyses include:

- Market size estimates for 1995, for all six service sectors included within customer services (see Appendix C for definitions)
- Five-year growth forecasts for each service sector, for the period 1996 to 2001.

Detailed competitive data is presented in the form of analyses by country, plus full revenue analysis for the leading 20 customer services vendors in Europe.

Quantitative data is supported by qualitative analysis of the trends which are changing the nature of buyer demand for IT customer services. This includes, for the first time, analysis by industry sector.

Western European country markets included in this report are:

Austria	France	Italy	Spain
Belgium	Germany	Netherlands	Sweden
Denmark	Greece	Norway	Switzerland
Finland	Ireland	Portugal	UK

Countries aggregated into the Central and Eastern European market are:

Albania	Estonia	Poland	Slovenia
Bulgaria	Hungary	Romania	Ukraine
Croatia	Latvia	Russian Federation	Serbia*
Czech Republic	Lithuania	Slovak Republic	Other CIS countries

(* and the other former Yugoslavian republics)

B

Methodology

INPUT's established methodology was used for deriving base year market sizes and five-year forecast analyses. The methodology is based on extensive vendor revenue collection and analysis techniques, plus user research conducted in the leading country markets of Europe.

INPUT's analysis is supplemented by information from various other sources including vendor annual reports, company press releases and specialised data published by the computer market trade press.

C

Economic Statistics

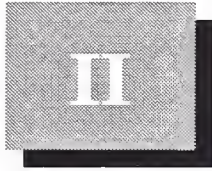
Details of the currency conversion rates used in the compilation of the forecasts in this report are contained in Appendix C.

D**Report Structure**

The remaining chapters of this report are as follows:

- Chapter II is an executive summary of the key findings of the study
- Chapter III describes the key market trends which will influence the customer services market in Europe over the period 1996 to 2001
- Chapter IV contains analyses of the European customer services market by industry sector, and provides supporting information on the business and IT drivers affecting major industry sectors
- Chapter V contains quantitative analyses of the customer services market in 16 individual European country markets, plus Central and Eastern Europe (expressed in local currencies and US dollars) for the period 1996 to 2001
- Chapter VI contains estimates of the revenues of the leading customer services vendors in each of 16 individual European country markets, plus Eastern Europe. The chapter also contains a detailed analysis of the revenues of the top 20 customer services vendors in Europe, broken down by country and service sector
- Appendix A defines INPUT's view of the IT customer services market, and provides detailed definitions of service sectors and delivery modes
- Appendix B provides a reconciliation between INPUT's current market forecast and the previous market forecast made in 1995
- Appendix C provides the exchange rates used in sizing and forecasting the customer services market.

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Executive Summary

A

Stronger Growth Ahead as Economies Recover, New Markets Emerge

In the first half of the decade, the market for IT customer services has been characterised by two significant inhibiting factors: recessionary conditions affecting most European economies, coupled with the decline in traditional equipment services sectors. Successive market analyses throughout this period have revealed flat or slow growth, as customer services organisations have struggled to survive amid tough economic conditions, while striving to meet demand for new types of value-added services.

As the European economy has recovered, the IT industry has bounced back and, with dramatic new developments in networking and communications technology emerging, the prospects for genuine growth in the latter part of the decade look good.

IT markets in the UK, Scandinavia, Germany and the Netherlands in particular have shown good growth, with most IT services markets outperforming the industry as a whole. Recovery in the Italian IT market has taken longer, but more rapid adoption of new technology will see the Italian market catch up in the next two to three years. Even Spain, having been in recession for longer than most, at last shows signs of recovery.

However, despite this brighter economic outlook, traditional IT customer services vendors are still adversely affected by the continued decline in the equipment maintenance business. Most systems vendors and independents have broadened their service portfolio substantially, but struggle against a crude market perception that they are mere box-shifters and box-fixers.

The evidence of this year's market analysis suggests that progress is being made in this respect. With the larger equipment manufacturers boasting

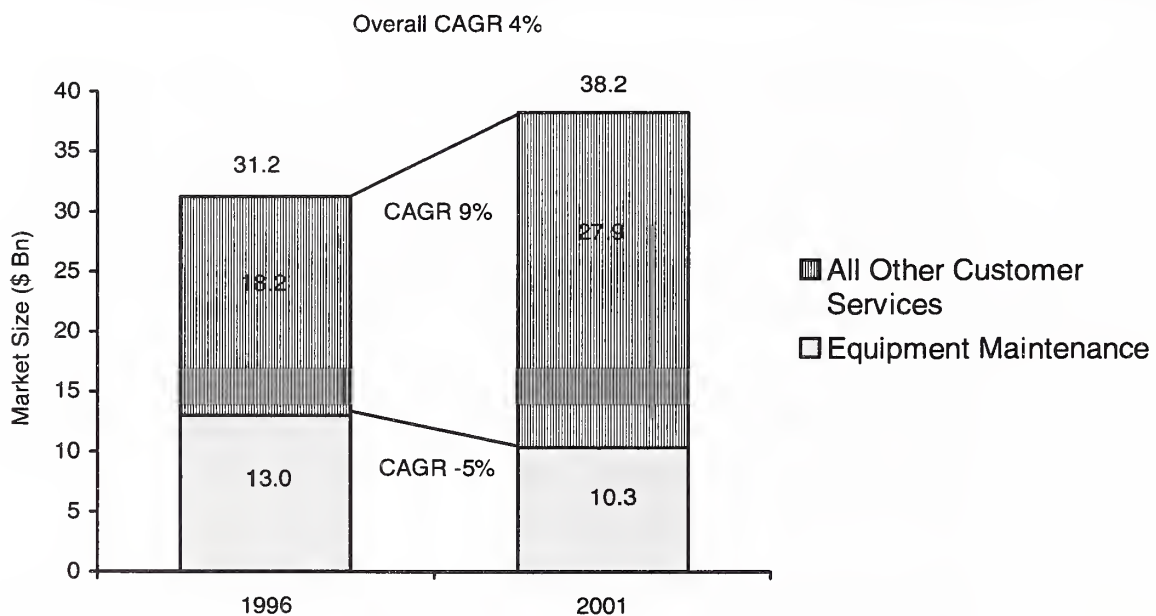
service revenues of up to 50% of total revenues, it is increasingly difficult to deny that a fundamental transition is taking place.

In 1995/6, the equipment maintenance sector declined by 4%, yet the combined growth of all other customer service sectors resulted in a net market growth of 3%, up from 2% in 1994/5. Continued decline in remedial services will be offset by growth in software support, environmental and network services, and professional services performed by customer services vendors over the next few years.

As shown in Exhibit II-1, the net growth of the customer services market is forecast to be 4% between 1996 and 2001.

Exhibit II-1

European Customer Services Growth — Maintenance Vs Non-Maintenance Services, 1996-2001



Source: INPUT

Note that INPUT has resisted forecasting an even more dramatic decline in the equipment maintenance market over the next few years, due mainly to the evident revival in the IT equipment market. European hardware revenues increased by approximately 9% in 1995, up from 5% in 1994. This strengthening of the hardware market can be explained by several factors, including an upswing in new purchases due to renewed business confidence, plus the impact of the Internet in encouraging both consumer and business equipment purchases.

However, INPUT believes that due to continuing price pressure, ever-increasing reliability of hardware components and the continued move away from relatively high-cost bundled service contracts, the overall trend in equipment maintenance is real decline.

Exhibit II-2 shows the growth of the non-maintenance sectors of the market for the period 1996-2001.

Exhibit II-2

Growth of Non-Maintenance Service Sectors, Europe 1996-2001

Service Sector	1996	CAGR (%)	2001
Environmental Services	9690	8	14210
Systems Software Support	2,360	6	3100
Education & Training	3340	7	4730
Business Continuity Services	810	16	1700
Other Professional Services	2020	15	4100
Combined Growth of Non-Maintenance Sectors (rounded)	18,220	9	27,840

Source: INPUT

A number of factors will drive the market for IT customer services over the next few years. These include:

- The continued shift towards *multivendor* support services
- Significant activity in the market for call centre and help desk services
- The stimulating effect of increased Internet usage and the rapid acceptance of Intranets as the new platform for business applications.

These factors are described in detail in Chapter III. However, customer services vendors looking to capitalise on the substantial opportunities which are beginning to emerge are advised to implement the following actions as part of their service strategy with immediate effect:

- Make network services, specifically Internet and Intranet-related services a core part of your portfolio
- Focus on high-growth vertical markets, or those where you have a track record of success

- Strengthen your organisation's commitment to the basic principles of good customer service.

B

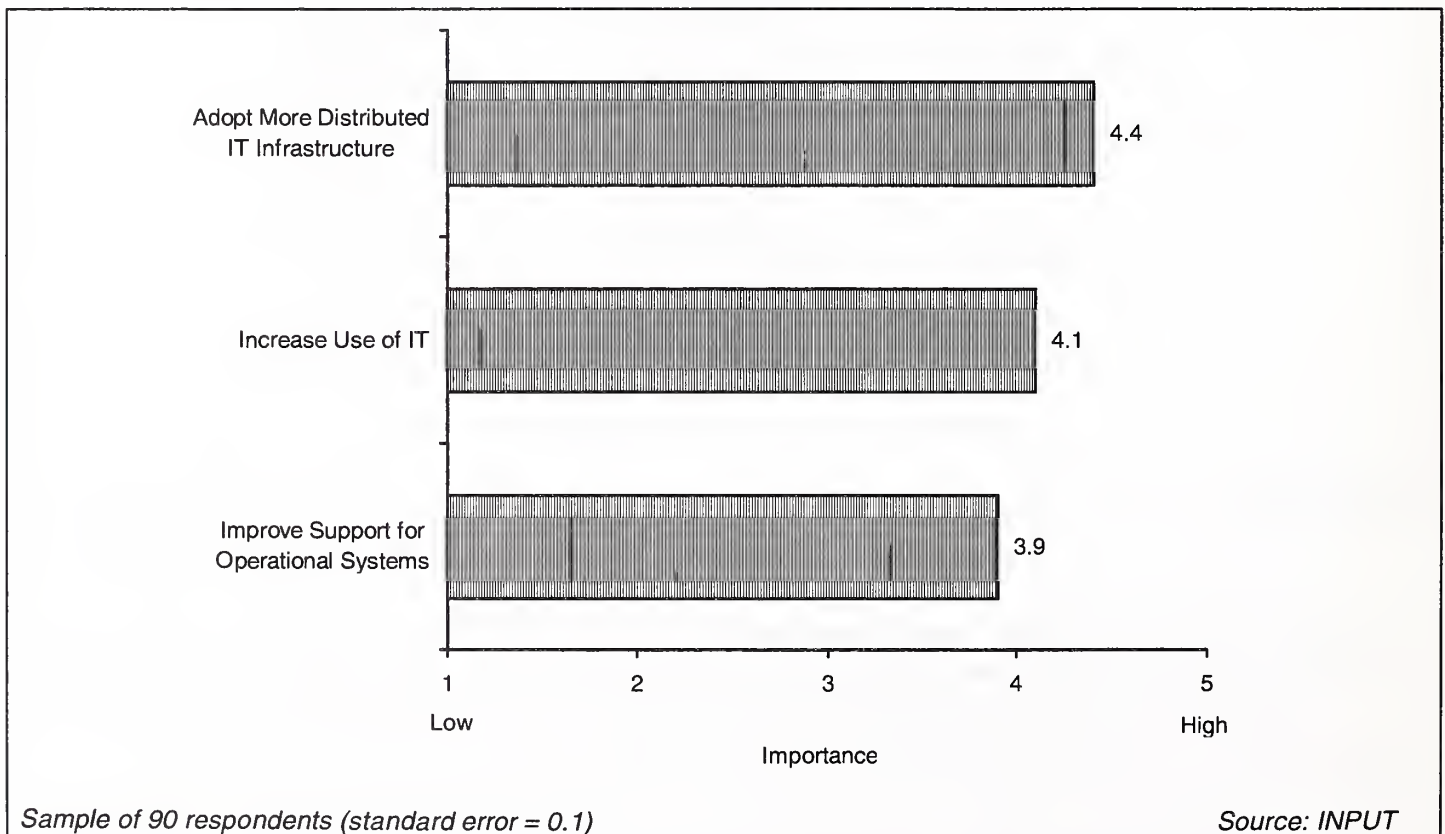
Vendors Must Adopt A Network-Centric Services Strategy

The dominant driving force for the IT industry as a whole is the relentless trend towards distributed computing. Similarly, the network is becoming the dominant platform for both products and services alike.

However, not only do organisations understand that the *network-centric* model is *the* accepted business model for future development (see Exhibit II-3), the fact is that networked computing represents a new era for the IT industry. Whereas in the past, computers have been harnessed for improving internal business processes, in future fully network-enabled computers will be used to automate external links to customers and suppliers. Furthermore, the impact of networked computing will be felt not just in the corporate environment, but throughout society.

Exhibit II-3

Organisations Seek to Adopt More Distributed IT, Europe 1995/6



As the demand for distributed computing grows, significant opportunities are emerging in areas such as network design, implementation, monitoring and management. Even more significantly, however, the market for LAN and WAN integration services looks set for rapid growth, as larger corporates struggle to integrate independent networks on an enterprise-wide basis.

Today, interoperability of networks and the ability to share applications and core data throughout the enterprise are the key IT objectives of most large organisations. However, many organisations have struggled to achieve these goals.

Now, the emergence of the Internet (and more particularly, Intranets) as a viable platform for business applications, looks set to provide the answer to many of the interoperability problems facing organisations today.

Already the Internet is boosting the market for installation and support of dedicated equipment, and a broad range of Internet-related professional services is now emerging. Furthermore, significant developments are taking place in terms of:

- The progressive shift of applications to the Internet, causing an equivalent shift in the market for software support
- Increasing use of the Internet as a delivery vehicle for product support
- Rapidly growing demand for integration and outsourcing services related to Intranets.

Vendors who have yet to devise an Internet services strategy risk being at a significant competitive disadvantage in the near future.

C

Vertical Market Focus Increasingly Important

Historically, the IT customer services market has been far less influenced by industry-specific factors than other IT services markets such as systems integration and outsourcing. When the customer services market was little more than a break/fix business, the demand profile was relatively uniform across industry sectors.

One of the forces which compelled the customer services business to focus more on systems availability than simple remedial service was the increasing need for service level guarantees in mission critical environments such as those found in the banking and finance industry.

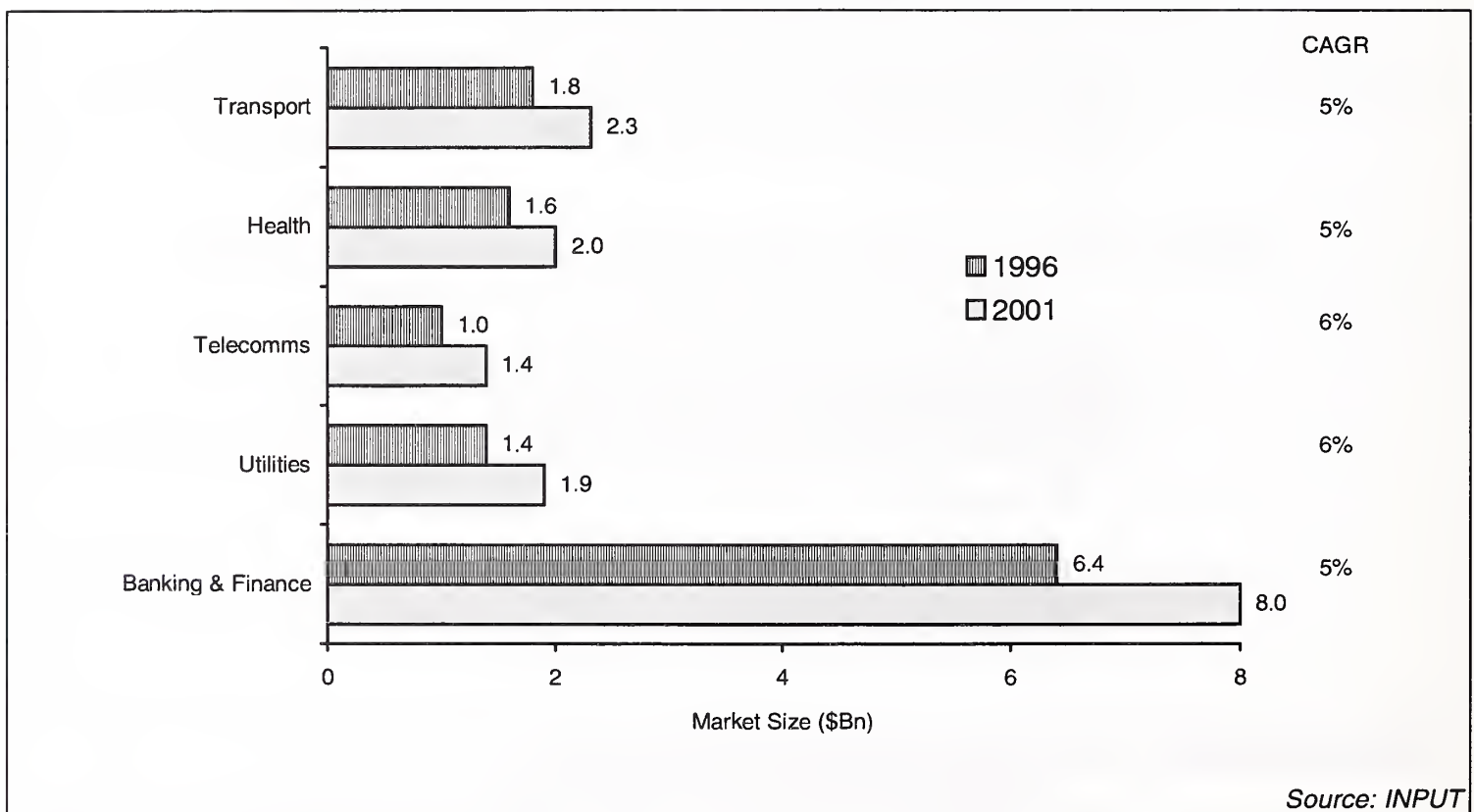
And, as the customer services market continues to evolve towards a *business support* paradigm rather than a simple IT product focus, so the need to understand the business drivers within specific industries will become more acute.

Vendors should follow the recent examples set by vendors such as Digital and Olivetti. Both of these organisations have reined in their ambitions by beginning to focus on key vertical markets where they have established expertise.

Exhibit II-4 shows the highest growth vertical markets for customer services over the next five years.

Exhibit II-4

Industry Sector Forecast, Europe 1996-2001 (\$ Millions)



D**Vendors Must Return to Customer Service Basics**

While the IT industry reverberates to the sounds of new opportunities based on the latest computer platform or application environment, it is important to keep in touch with some essential commercial realities. While the Internet and the World Wide Web will undoubtedly have profound effects on business life, it should be remembered that such phenomena ultimately serve only one purpose in business: to enable organisations to deliver more efficient and better quality service to their customers.

The single most important issue surrounding the use of new technology is how it can be made to deliver genuine competitive advantage through improvements in service.

Hence, at a time of great change and upheaval in the IT industry, it is more important than ever for IT customer services vendors to stay focused on the guiding principles of customer service, and to keep their customers' customers firmly in mind when developing and promoting their own service offerings.

In a recent survey, 100 IT Directors in France, Germany and the UK were asked to identify the biggest pressures currently facing their organisations. The need to improve customer service was one of the top three pressures identified.

Today businesses are witnessing the birth of a new electronic marketplace which offers highly sophisticated forms of interactive customer service. Recent advances in technology and communications are enabling businesses to extend their reach via electronic points of presence to target, attract and retain customers.

Electronic, interactive forms of customer service represent a major shift for the business community. Home share trading, smart phone banking, Internet shopping, multimedia kiosks and high-tech customer service centres are changing the focus of corporate computing: from an internal IT focus to an external customer service focus.

This shift from internal IT focus to consumer focus requires IT departments to take a very different perspective, since consumers' demands can be much greater than those of typical corporate end-users. Consumers will expect computerised services to be as dependable as other services such as electricity, telephony or water supply.

Vendors have not been slow to advance the cause of interactive customer service. Information and service providers have been busy combining computing and networking technologies to make it easier for consumers to purchase services and products. And leading telecomms companies around the world are at present building broadband infrastructures to prepare for the coming explosion of multimedia content.

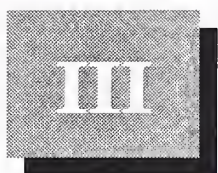
Already, leading-edge multimedia applications have appeared in the form of online messaging services, electronic newspapers, kiosks, electronic libraries, interactive TV and home shopping.

However, while vendors are pushing the boundaries of technology to deliver these high-tech customer services, some of the benefits may be lost if vendors fail to understand basic buyer values, i.e. what customers really want. In this sense, IT service providers must stay in touch with the needs of their customers, and their customers' customers.

Consequently, increasing numbers of vendors are adopting some form of *Customer Care* programme. Customer Care is a philosophy which reflects the fact that providing excellent customer service is the most important source of competitive advantage for businesses today. The concept of Customer Care is not new, but is becoming increasingly important. Those vendors who have yet to espouse the Customer Care philosophy are advised to address the issue soon.

Other industries, such as the direct financial services industry, have proved that good Customer Care can be used as a way of retaining customer loyalty. The telephone banking and direct insurance companies have made Customer Care their forte, and IT service organisations can learn a lot by their example.

It may seem prosaic in the light of much high-tech pontification about the Internet and related technologies, yet INPUT firmly believes that adherence to the basic principles of customer service will be one of the cornerstones of success in the next few years.



Customer Services Market Trends, Europe 1996-2001

This chapter contains:

- *Section A*, an analysis of customer services market conditions in 1995
- *Section B*, forecasts for the growth of user expenditure on customer services in Europe in the period 1996 to 2001
- *Sections C to G*, commentary and analyses of the key trends which will influence the European market for customer services between 1996 to 2001 (note that certain analyses relate to the period 1995-2000).

A

Analysis of 1996 Customer Services Market

In 1995/6, the European customer services market grew by 3%, compared with 2% in 1994/5 and 1% in 1993/4. The relatively modest growth in the overall market reflects the balancing effect of two distinct parts of the market:

- The equipment maintenance sector, still the largest customer services sector, which is in decline
- Non-remedial service sectors (sometimes referred to generically as *value-added services*) which are continuing to grow strongly.

Exhibit III-1 shows the growth of each of the principal customer services sectors in 1995/6. The improvement in total market growth reflects the fact that the maintenance sector fell by 4% for the second successive year, while all other services combined grew 7% (compared with 6% in 1994/5).

Exhibit III-1

**European Customer Services Growth by Sector
1995/6 (\$ Millions)**

Service Sector	1995	(%)	1996
Equipment Maintenance	13540	-4	13030
Environmental Services	9020	7	9690
Systems Software Support	2250	5	2360
Education & Training	3150	6	3340
Business Continuity Services	710	14	810
Other Professional Services	1760	15	2020
Total Customer Services (rounded)	27,220	3	31,250

Source: INPUT

Note that the actual 1995 market size for each service sector varies from the value forecast last year for several reasons (not simply because the growth rate for 1994/5 was different from that forecast). Variance ranging from 12% in the size of the equipment maintenance sector, to approximately 70% for "other professional services" can be accounted for by a combination of factors:

- Local exchange rate fluctuations which become evident when the market value is expressed in US dollars
- More accurate market evaluation, based on closer understanding of market conditions in some of the smaller European countries
- The tendency for many vendors to reallocate revenues, mostly in favour of professional services sectors.

Appendix B provides a reconciliation between INPUT's current market forecast and the previous market forecast made in 1995.

User expenditure on customer services in 1996 is anticipated to be just over \$31 billion. This *open market* for customer services represents approximately 75% of the total potential market, the remaining 25% forming the *captive* portion of the market.

The captive portion of the customer services market is in two parts:

- Systems software support revenues, collected as an item which is bundled with the software licence fee, accounting for approximately 7% of the entire captive market
- User self-service, including the in-house provision of environmental services, self-maintenance and some professional services. User self service accounts for the remaining 93% of the captive portion of the market, of which 43% (44% in 1995) is related to the provision of environmental services.

Exhibit III-2 shows how the total *potential* customer services market in 1996 breaks down into user expenditure and captive market components. The total potential market is estimated to represent over \$41 billion in 1996 (compared with an estimate of almost \$37 billion for 1995).

Exhibit III-2

Total Potential Customer Services Market, Europe 1996 (\$ Millions)

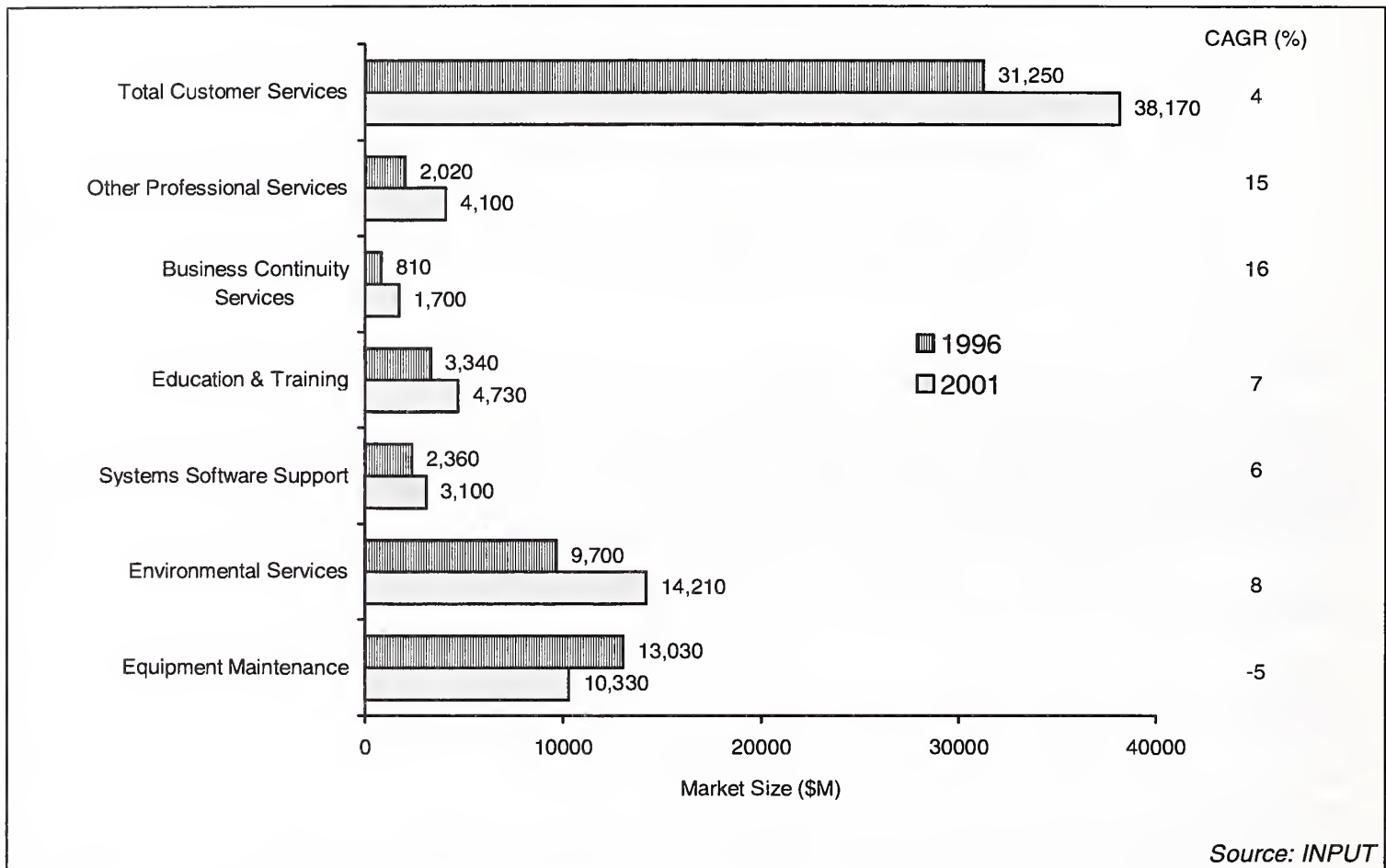
	Equipment Maintenance	Environmental Services	Systems Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
User Expenditure	13030	9690	2360	3340	2020	810	31250
Captive Revenue (Bundled)	-	-	750	-	-	-	750
Captive Revenue (self-service)	270	4150	260	3210	1720	-	9610
Total Potential Market (rounded)	13300	13840	3370	6550	3740	810	41610

Source: INPUT

B**Market Sector Trends, 1996-2001**

Exhibit III-3 shows the pattern of customer services growth in Europe over the next five years, broken down by market sector.

Exhibit III-3

Market Sector Growth, Europe 1996-2001 (\$ Millions)

While overall market growth is relatively modest at 4% CAGR, the underlying market sectors reveal a broad variety of growth dynamics:

- The growth of the equipment maintenance sector is forecast to be negative at -5% CAGR. In 1996, user expenditure for equipment maintenance represented 42% of the total customer services market. This figure is forecast to fall to 27% by the year 2001
- Systems software support expenditure, which now accounts for just over 7% of the total market, will grow at 6% CAGR. By 2001, this will account for over 8% of the total market

- Environmental services expenditure, which now accounts for 31% of the total market, will grow to 37% (i.e. larger than the equipment maintenance market at that time) by the year 2001
- Education and training expenditure accounts for 10% of the total market in 1996, growing to over 12% by 2001
- Professional services account for over 6% of the total market in 1996, rising to almost 11% by 2001
- Business continuity services expenditure accounts for just almost 3% of the total market in 1996, and is forecast to grow to over 4% by the year 2001.

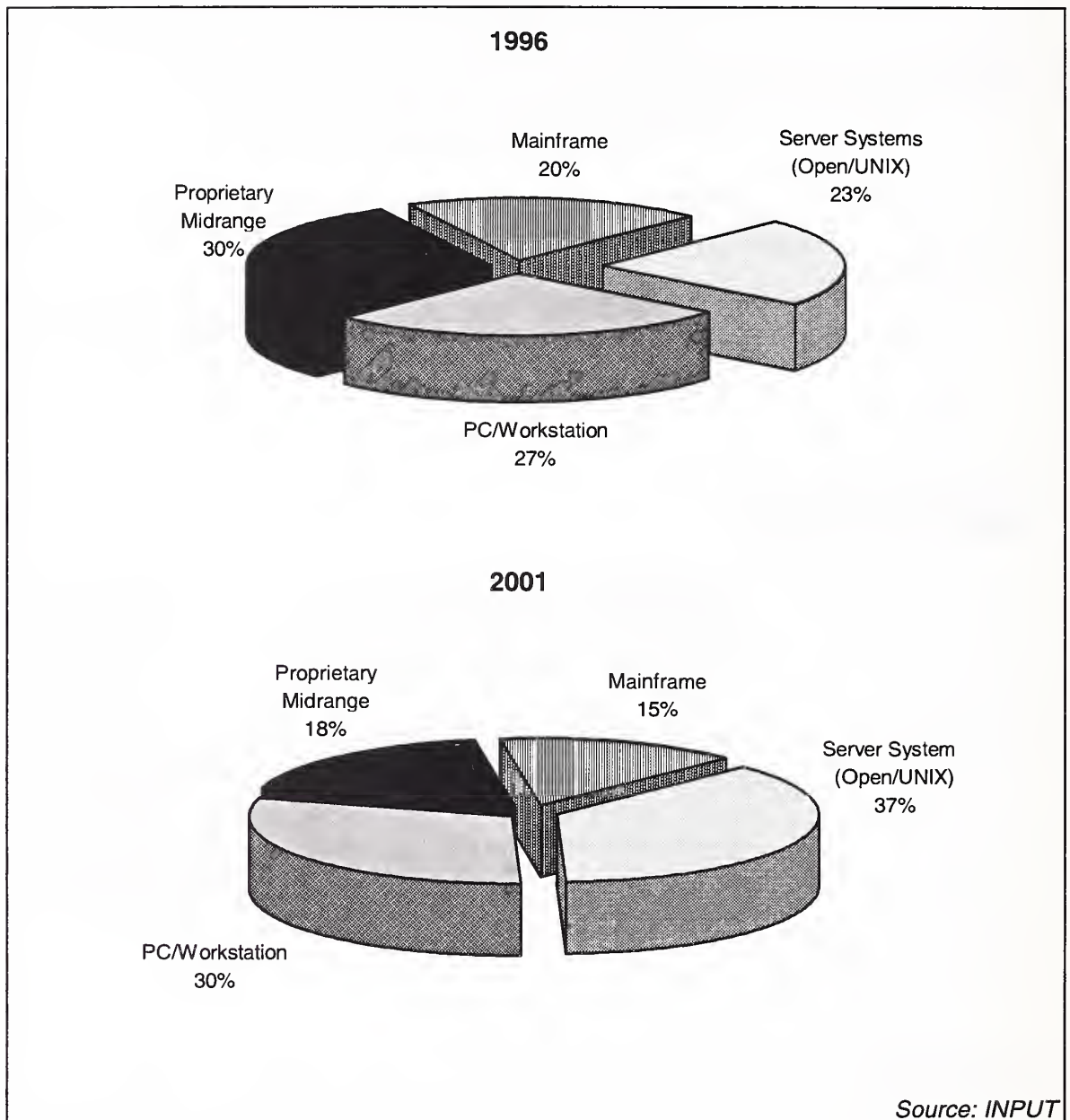
C

Platform Trends

Organisations are making every effort to improve the consolidation and distribution of information. Hence, for some time, organisations have been turning to client/server solutions in increasing numbers.

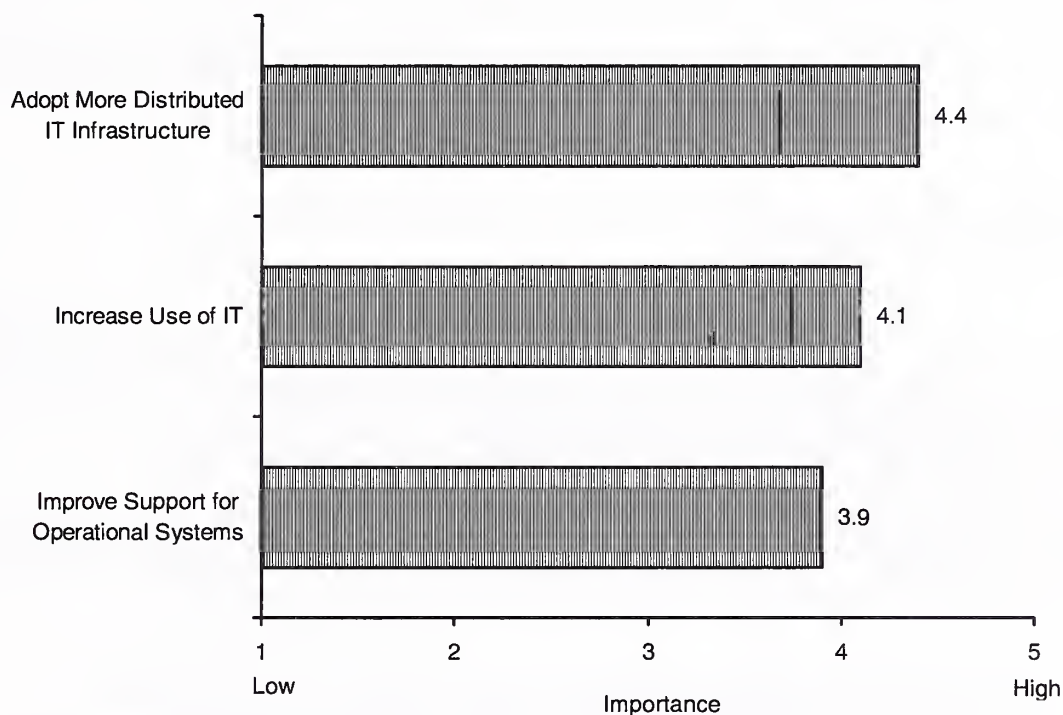
As client/server has become the de facto computer architecture, so the delivery of customer services has shifted away from proprietary to open client/server computing platforms. INPUT forecasts a continued shift of service delivery onto open platforms (Unix/NT servers and PCs/Workstations) over the next five years. This shift is illustrated in Exhibit III-4.

Exhibit III-4

Customer Services Platform Shifts, Europe 1996-2001

While the shift to client/server technology is driving much of the change in the customer services market, it is the development of the underlying network technology which is enabling much of that change. Users surveyed in the last year considered various aspects of network services to be highly important to the future viability of their IT infrastructure. At a more fundamental level, the organisations surveyed considered the need to adopt a more distributed IT infrastructure to be by far the most important IT-related business issue. This is shown in Exhibit III-5.

Exhibit III-5

Most Important IT-Related Issues, Europe 1995/6

Sample of 90 respondents (standard error 0.1)

Source: INPUT

The increasing reliance on distributed computing, coupled with the often chaotic state of corporate network infrastructures, are creating powerful pressures within organisations. The result is that the reluctance of IT managers to outsource, or even seek assistance with, the management and support of their networks, at last seems to be crumbling.

As the demand for distributed computing grows, significant opportunities are emerging in areas such as network design, implementation, monitoring and management. Even more significantly, however, the market for LAN and WAN integration services looks set for rapid growth, as larger corporates struggle to integrate independent networks on an enterprise-wide basis.

Today, interoperability of networks and the ability to share applications and core data throughout the enterprise are the key IT objectives of most large organisations. However, many organisations have struggled to achieve these goals.

Now, the emergence of the Internet (and more particularly, Intranets) as a viable platform for business applications, looks set to provide the answer to many of the interoperability problems facing organisations today. INPUT

forecasts that by 1998 the Internet will be *the* de facto network standard, while the World Wide Web (WWW) will become the de facto application environment.

Section F examines the likely impact of the Internet, and Intranets, on the support services markets.

D

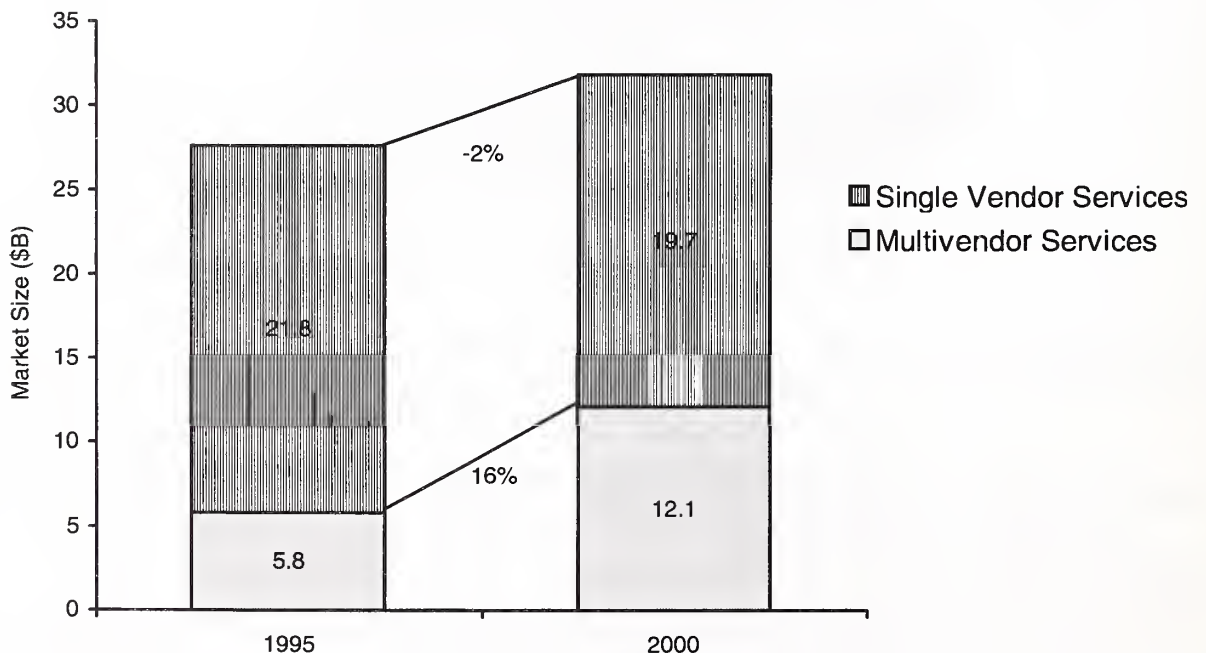
Multivendor Services Trends

In 1995, just over 20% of all IT customer services in Europe were delivered as *multivendor* service contracts. This represents a \$5.8 billion market, which is forecast to grow to over \$12 billion (38% of the total IT customer services market) by the year 2000.

Exhibit III-6 shows the growth of the multivendor services market in relation to the total customer services market in the period 1995 to 2000.

Exhibit III-6

Multivendor Services as A Component of the IT Customer Services Market, Europe 1995-2000 (\$ Billions)



Source: INPUT

Note that INPUT uses the term *multivendor services* to include not just services which are equipment-related, but all services related to the support of the IT infrastructure. This includes the provision of software support, plus various types of value-added service. The definition of multivendor services is essentially a contractual one. Services are only deemed to be multivendor where the contract is for services in support of equipment or software from more than one vendor.

Based on this definition, Exhibit III-7 shows the market growth of the three principal components for the period 1995 to 2000.

Exhibit III-7

Multivendor Services Market Components, Europe 1995-2000

Service Component	Estimated Market Size (\$Bn)		
	1995	2000	CAGR (%)
Equipment Services	4.1	7.3	12
Software Support	0.6	1.5	20
Value-Added Services	1.1	3.3	24
Total	5.8	12.1	16

Source: INPUT

All sectors of the multivendor services market are growing, even the equipment services sector. *Multivendor* maintenance is continuing to grow, against the overall trend in the maintenance market. While the total market for maintenance services (much of which is still proprietorial) is in decline (-5% CAGR, 1996 to 2001), the multivendor sector is still growing at approximately 12% per annum.

While the market for multivendor software support is forecast to grow healthily (20% CAGR between 1995 and 2000), it is interesting to note that while systems software support will grow 10% per year, the market for support of application software will grow in excess of 25%.

The market for various value-added services, most of which are related to the desktop, will exhibit the strongest growth of the three component sectors (24% CAGR over the next five years).

Note also the following trends:

- Equipment services comprise the majority of multivendor services in 1995. Maintenance and installation services combined represent 70% of the total multivendor services market, though this is forecast to fall to 60% by the year 2000
- Almost 70% of multivendor equipment services relate to the maintenance of equipment, the remaining 30% relating to installation and associated services. This ratio is forecast to shift to 60:40 by the year 2000
- Software support accounts for 11% of the multivendor services market in 1995, and is expected to grow to 13% of the market within the next five years
- Value-added services account for 19% of the multivendor services market in 1995, and are expected to constitute 27% of the market by the year 2000.

E

Call Centre and Help Desk Trends

A significant recent development in desktop services has been the emergence of a substantial market surrounding the IT help desk.

To date, the great majority of help desk services purchased relate to the design and build phases of the IT lifecycle. This has been driven by strong demand from organisations implementing help desks for the first time or modernising existing help desks.

However, there are now signs that *operational* services are set for significant growth (where the day-to-day operation of the help desk is outsourced to the service supplier). Surveys three years ago and two years ago indicated very low levels of help desk operations outsourcing. However, 1996 research reveals that currently 16% of IT help desks across Europe have been outsourced to a third party.

INPUT estimates that as much as \$11 billion is currently spent on help desk services in Europe, less than 5% of which (approximately \$500 million) is spent with third party suppliers. However, INPUT forecasts that this embryonic market will grow to \$3 billion by the year 2000, as shown in Exhibit III-8.

Furthermore, as shown in Exhibit III-9, strong growth is forecast for each of the major European territories.

Exhibit III-8

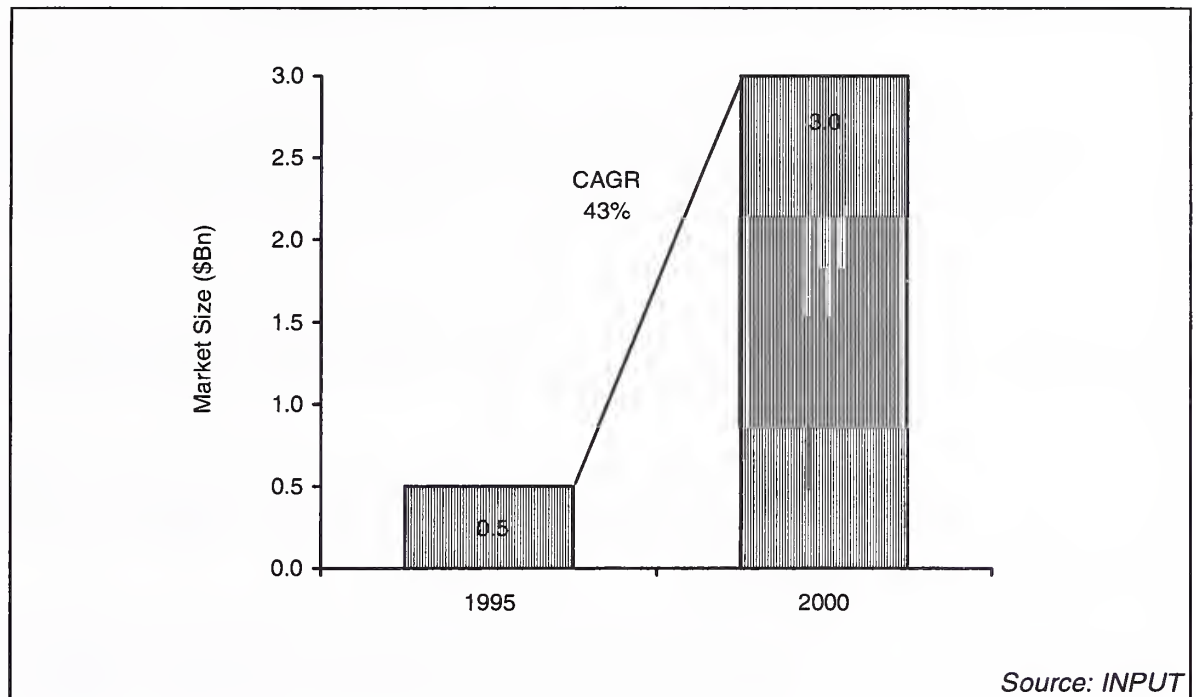
Help Desk Services Market, Europe 1995-2000

Exhibit III-9

Help Desk Services Market by Territory, Europe 1995-2000

Territory	Market Size (\$m)		CAGR (%)
	1995	2000	
UK	120	660	41
Central Europe	90	630	48
Benelux	75	450	43
France	70	340	37
Scandinavia	65	400	44
Rest of Europe	80	520	45
Europe Total	500	3,000	43

Source: INPUT

F

The Impact of the Internet on Support Services

This time last year, INPUT reported that very few IT support services organisations had implemented any form of Internet strategy, though there were signs of activity amongst the leading players in areas such as installation and support of dedicated Internet equipment, and associated professional services.

One year on, most of the leading systems vendors have defined an Internet services portfolio, which is considered increasingly central to those vendors' overall services strategy.

Unlike a year ago, it is now possible to forecast the likely impact of the Internet and related phenomena on the support services market, and in particular:

- How the progressive shift of applications to the Internet will cause an equivalent shift in the market for software support
- How increased Internet usage will affect traditional forms of software support
- How the emergence and rapid acceptance of *Intranets* is fuelling much of the market growth for IT services, in particular systems integration and outsourcing.

1. Twenty-Five Per Cent of Software Support Market will be Internet-Related by 2000

As recently as a year ago, the Internet was not considered to be a viable platform for business applications. However, INPUT forecasts that by 1998 the Internet will be the de facto network standard, while the World Wide Web (WWW) will become the de facto application environment.

With Java it is already possible to implement most types of cross-industry applications on the Web, though the Web as an application environment is still in the maturation phase of its development. Networked applications such as groupware have already started to migrate to the Web; database applications and personal productivity applications will follow quickly.

In the last year small and large enterprises alike, realising the future potential of the Internet as a business platform, have started to invest in the network infrastructure, equipment and software environments necessary to enable that potential to be realised.

Leading network specialists have seen a significant rise in profits attributable to Internet-related business. Companies such as 3Com, Cisco and Bay Networks are riding the current wave of demand for switches and routers to manage networks used for Internet access.

Similarly, vendors offering network and server installation and support services are beginning to benefit from the boom in Internet-related business. The leading vendors of Internet servers (Sun, Digital, H-P and IBM) are experiencing strong demand for their products.

These and other vendors are also offering packaged Internet solutions for business, which bundle equipment, software and services pre-configured in a range of prices.

Ultimately, however, it is the emergence of Internet application development tools which is making the Internet as a business platform a reality. Java is the first Internet-centric language, but existing client/server development environments are starting to make the transition. SAP R/3, for example, became "Internet-enabled" earlier this year.

As more applications are developed for the Internet, so the focus of software product support will switch to that platform. Exhibit III-10 shows the proportions of the software product support market which are Internet-related in 1995 and which will be by 2000.

Exhibit III-10

Internet Software Support Market, Europe 1995-2000 (\$m)

	1995	2000
Internet-Related Support	50	1600
Total Software Support Market	4900	6400
Internet-Related Support as Proportion of Total	1%	25%

Source: INPUT

2. Internet will Encourage Value-Added Software Support Services

Leading services organisations are now exploiting the potential of the Internet as a service delivery tool.

Since Sun Microsystems launched SunSolve ONLINE (the first fully-fledged service programme over the Internet) in 1993, most leading software vendors have followed suit by providing similar services: technical databases, bug reports and fixes, and entire software releases are now commonly available on the Internet.

The primary impact of the Internet on traditional support mechanisms will be to reduce the amount of first line support delivered by the telephone.

Exhibit III-11 illustrates commonly used support delivery mechanisms at present and Internet equivalents which will become more commonly used.

Exhibit III-11

How the Internet will Impact Traditional Support Delivery Mechanisms

Support Service	Traditional Delivery Mechanisms	Internet Equivalents
Problem Resolution	Telephone; on-site support consultant	Email; WWW; Discussion forums; FAQ databases; Remote problem resolution
Bug fixes/patches and upgrades	On-site support consultant; purchase directly from product vendor outlet and install	Remote upgrade; download bug fix/patch/upgrade and install
Initial Training	Training takes place on user site or at vendor site	Computer based training

Source: INPUT

Widespread Internet usage will enable support vendors to deliver their support services to a larger market than ever before, at reduced cost. Additionally, software product vendors can trap information about customers and their problems when they use the Internet for support. This customer feedback can be used to:

- Enhance software products
- Improve product documentation
- Improve product training

- Offer proactive support by alerting users to common problems
- Incorporate customer feedback into other business activities where appropriate, such as asset management.

Furthermore, product vendors can avoid problems traditionally associated with providing support, such as:

- Costs involved in employing large numbers of support staff
- Costs involved in investing in call centre infrastructure
- Difficulties in offering affordable support to SOHO users.

Given the ability of the Internet to deliver first line support services, vendors can be expected to reduce the amount of first line support that they outsource to partners. Product vendors will increasingly partner with companies who can offer multivendor second and third line support, while providing first line support over the Internet.

The most complex problem resolution activities will continue to be critical, but the overall impact of the Internet on software support will be to reduce the need for mundane problem solving and bug fixing. In general, software support vendors will be encouraged to develop higher value offerings such as consultancy and training services.

3. Intranets will Fuel IT Services Market Growth

The Internet is commonly thought of as an external and public medium, but the biggest benefits from Internet usage will be derived from its application as an internal and private medium; that is, an *Intranet*.

Defined as WWW environments used primarily for information sharing and applications exclusive to an organisation, Intranets have emerged as the driving force behind the phenomenal growth of Internet markets.

Because the Intranet market is in its infancy, takeup across Europe varies enormously. Hence, a better understanding of the market dynamics can be gained from analysing the leading country market (the UK) rather than presenting a consolidated European market view.

Exhibit III-12 compares the growth of UK Intranet-related spending to overall Internet spending. It shows that:

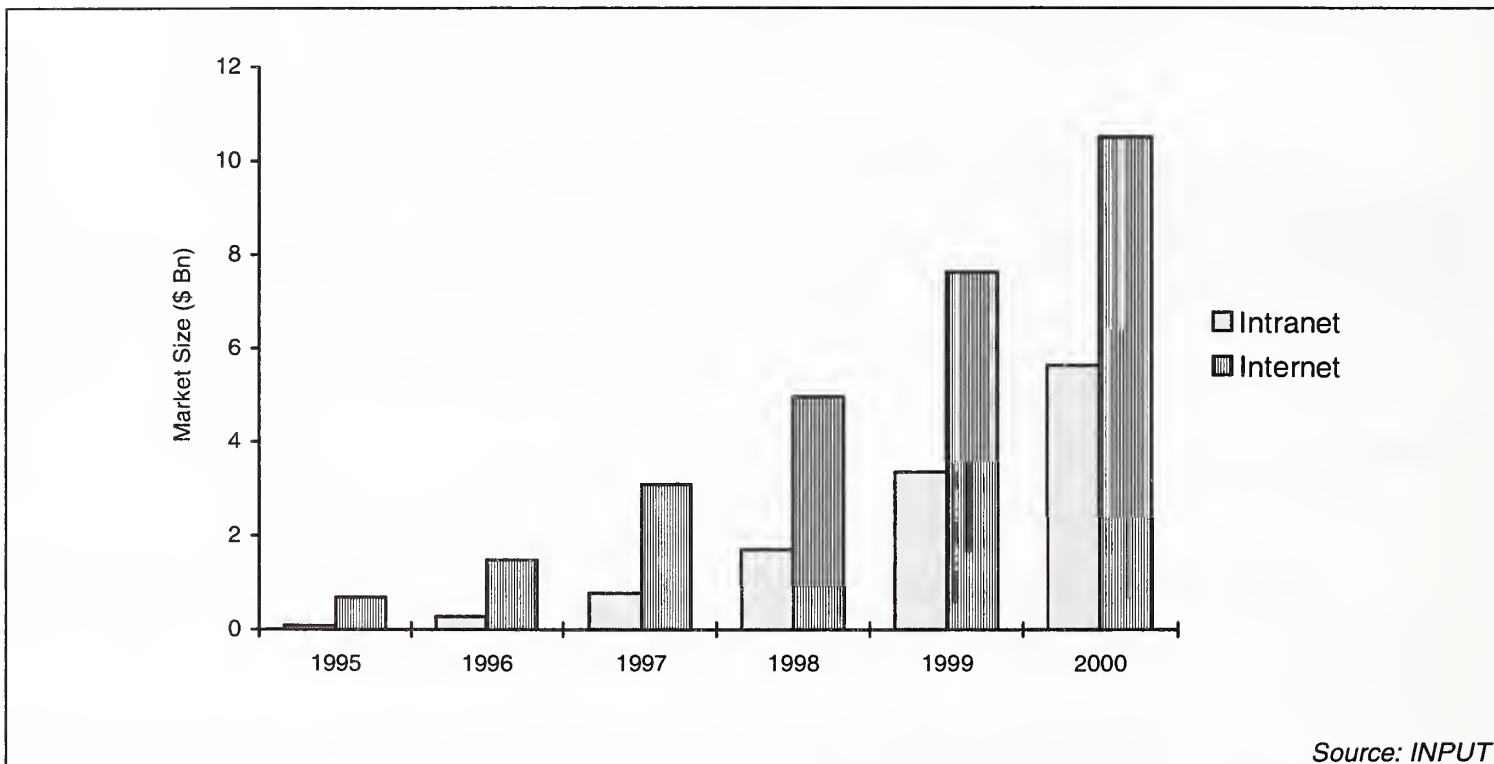
- The UK Internet market will increase from \$700 million in 1995 to \$10.5 billion by the end of 2000

- By 2000, the market for Intranet products and services in the UK will be worth over \$5 billion
- The Intranet market will grow nearly twice as fast as the overall Internet market over the next few years.

Furthermore, from 1996 to 2001, the Intranet-related UK market will increase at a CAGR of 134%. By 2001, it will have grown to \$5.6 billion. At that time, the Intranet-related market will generate more UK business than the professional services, systems integration, or outsourcing sectors individually.

Exhibit III-12

Intranet Vs Internet Market — UK, 1995-2000 (\$Bn)



This growth is being fuelled by:

- User interest in Internet-like environments within their organisations, based on the potential cost savings and lower management overheads involved
- Vendors of Internet and non-Internet products who have rebranded their products to target the Intranet market.
- Massive media coverage.

Within the overall Internet market, the proportion of spending on Intranets will increase at variable rates for different sectors. By 2001, Intranet spending in the UK will represent over two-thirds of all Internet spending in three sectors:

- Systems integration
- Application software
- Outsourcing.

These are considered briefly below:

Systems Integration — a \$500 Million Market by 2001

As the Intranet environment assumes the status of an enterprise-wide network, so the DIY approach to building Intranets will become obsolete.

A \$500 million opportunity exists for systems integrators to bring together existing networks and back-end legacy systems under the Intranet umbrella. The first major integrators to brand themselves Intranet integrators will realise that opportunity.

Application Software — a \$900 Million Market by 2001

The Web will be a mainstream medium for deployment, execution and support of software applications. By the end of the century, half the applications available today will be available in Web form.

The growth in the Intranet systems integration market will drive the Intranet application market, and ISVs must position themselves to address this market. By 2001, the UK Intranet application software market will be worth \$900 million.

Outsourcing — a \$500 Million Market by 2001

Outsourcing is strongest in mature markets, and as the Intranet market matures over the next five years, Intranet outsourcing will emerge as a strong growth market.

Organisations will outsource their business operations, network management and, most notably, their applications management. As Intranet system and network integration fuels the Intranet application market, so the outsourcing of those operations will follow.

G

Customer Service Principles Must Prevail

With reference to the previous section, it can be all too easy for industry pundits get carried away with predictions of how the latest computer platform or application environment will revolutionise business life. However, while the Internet and WWW will undoubtedly have profound effects, it should be remembered that such phenomena ultimately serve only one purpose in business: to enable organisations to deliver more efficient and better quality service to their customers.

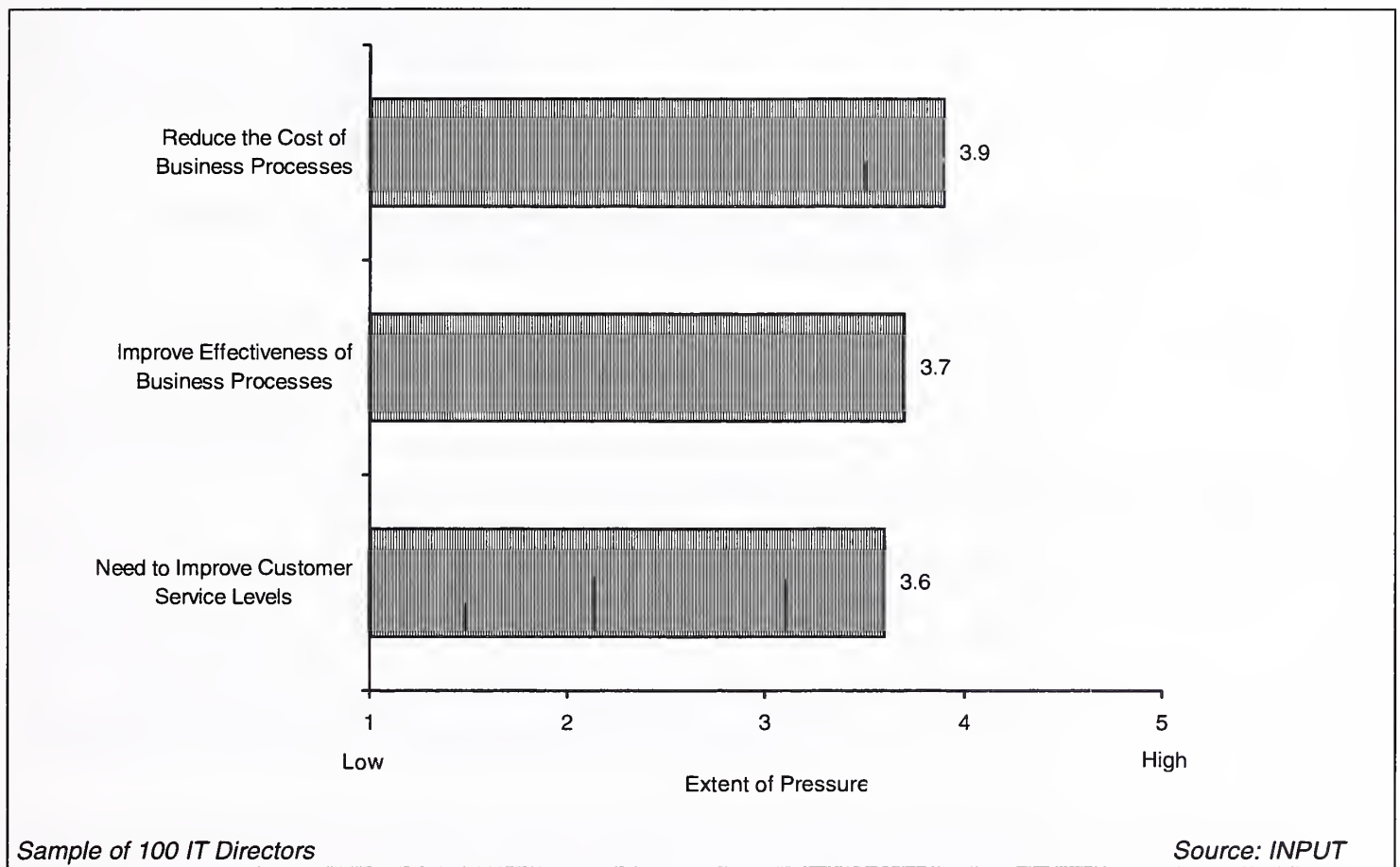
When the technology has been demystified, and is harnessed for real commercial use, the single most important issue is how it can be made to deliver genuine competitive advantage through improvements in service.

Hence, at a time of great change and upheaval in the IT industry, it is more important than ever for IT customer services vendors to stay focused on the guiding principles of customer service, and to keep their customers' customers firmly in mind when developing and promoting their own service offerings.

In a recent survey, 100 IT Directors in France, Germany and the UK were asked to identify the biggest pressures currently facing their organisations. The top two responses related to the cost and effectiveness of business processes.

However, the need to improve customer service came a close third. See Exhibit III-13.

Exhibit III-13

Top Three Pressures Facing User Organisations Now

Today businesses are witnessing the birth of a new electronic marketplace which offers highly sophisticated forms of interactive customer service. Recent advances in technology and communications are enabling businesses to extend their reach via electronic points of presence to target, attract and retain customers.

Furthermore, the old limitations of commerce are being eradicated. Business can now be conducted continuously, at the consumer's convenience, at any time and from almost any place.

Electronic, interactive forms of customer service represent a major shift for the business community. Home share trading, smart phone banking, Internet shopping, multimedia kiosks and high-tech customer service centres are changing the focus of corporate computing: from an internal IT focus to an external customer service focus.

To support these services, broad applications areas are converging:

- Networking from electronic commerce
- Advanced customer information database technology from decision support
- Online transaction processing, now encompassing multimedia transaction content.

This shift from internal IT focus to consumer focus requires IT departments to take a very different perspective, since consumers' demands can be much greater than those of typical corporate end-users. Consumers will expect computerised services to be as dependable as other services such as electricity, telephony or water supply.

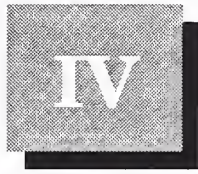
Vendors have not been slow to advance the cause of interactive customer service. Information and service providers have been busy combining computing and networking technologies to make it easier for consumers to purchase services and products. And leading telecomms companies around the world are at present building broadband infrastructures to prepare for the coming explosion of multimedia content.

Already, leading-edge multimedia applications have appeared in the form of online messaging services, electronic newspapers, kiosks, electronic libraries, interactive TV and home shopping.

However, while vendors are pushing the boundaries of technology to deliver these high-tech customer services, some of the benefits may be lost if vendors fail to understand basic buyer values, i.e. what customers really want. In this sense, IT service providers must stay in touch with the needs of their customers, and their customers' customers.

Consequently, increasing numbers of vendors are adopting some form of *Customer Care* programme. Customer Care is a philosophy which reflects the fact that providing excellent customer service is the most important source of competitive advantage for businesses today. The concept of Customer Care is not new, but is becoming increasingly important.

Other industries, such as the direct financial services industry, have proved that good Customer Care can be used as a way of retaining customer loyalty. The telephone banking and direct insurance companies have made Customer Care their forte, and IT service organisations can learn a lot by their example.



Industry Sector Analysis

Section A of this chapter contains forecasts of the European customer services market by industry sector. Sections B to G contain discussions of the business pressures and trends within a number of key industry sectors.

A

Industry Sector Forecast, Europe 1996-2001

Historically, the IT customer services market has been far less influenced by industry-specific factors than other IT services markets such as systems integration and outsourcing. When the customer services market was little more than a break/fix business, the demand profile was relatively uniform across industry sectors.

One of the forces which compelled the customer services business to focus more on systems availability than simple remedial service was the increasing need for service level guarantees in mission critical environments such as those found in the banking and finance industry.

And, as the customer services market continues to evolve towards a business support paradigm rather than a simple IT product focus, so the need to understand the business drivers within specific industries will become more acute.

Exhibit IV-1 provides an analysis of the customer services market by industry sector, showing forecasts for the period 1996 to 2001.

Exhibit IV-1

Industry Sector Forecast, Europe 1996-2001 (\$m)

Industry Sector	1996	2001	CAGR (%)
Discrete Manufacturing	3970	4550	3
Process Manufacturing	2920	3500	4
Transport	1800	2300	5
Telecomms	1060	1400	6
Utilities	1440	1900	6
Retail	2230	2700	4
Wholesale	1160	1250	2
Banking & Finance	6400	8000	5
Insurance	2430	3000	4
Health	1570	2050	5
Education	650	850	5
Business Services	1360	1680	4
Central Government	2130	2450	3
Local Government	1560	1900	4
Others	570	630	2
All Industries	31,250	38,160	4

Source: INPUT

The following sections describe the business pressures and specific IT challenges which face specific industry sectors.

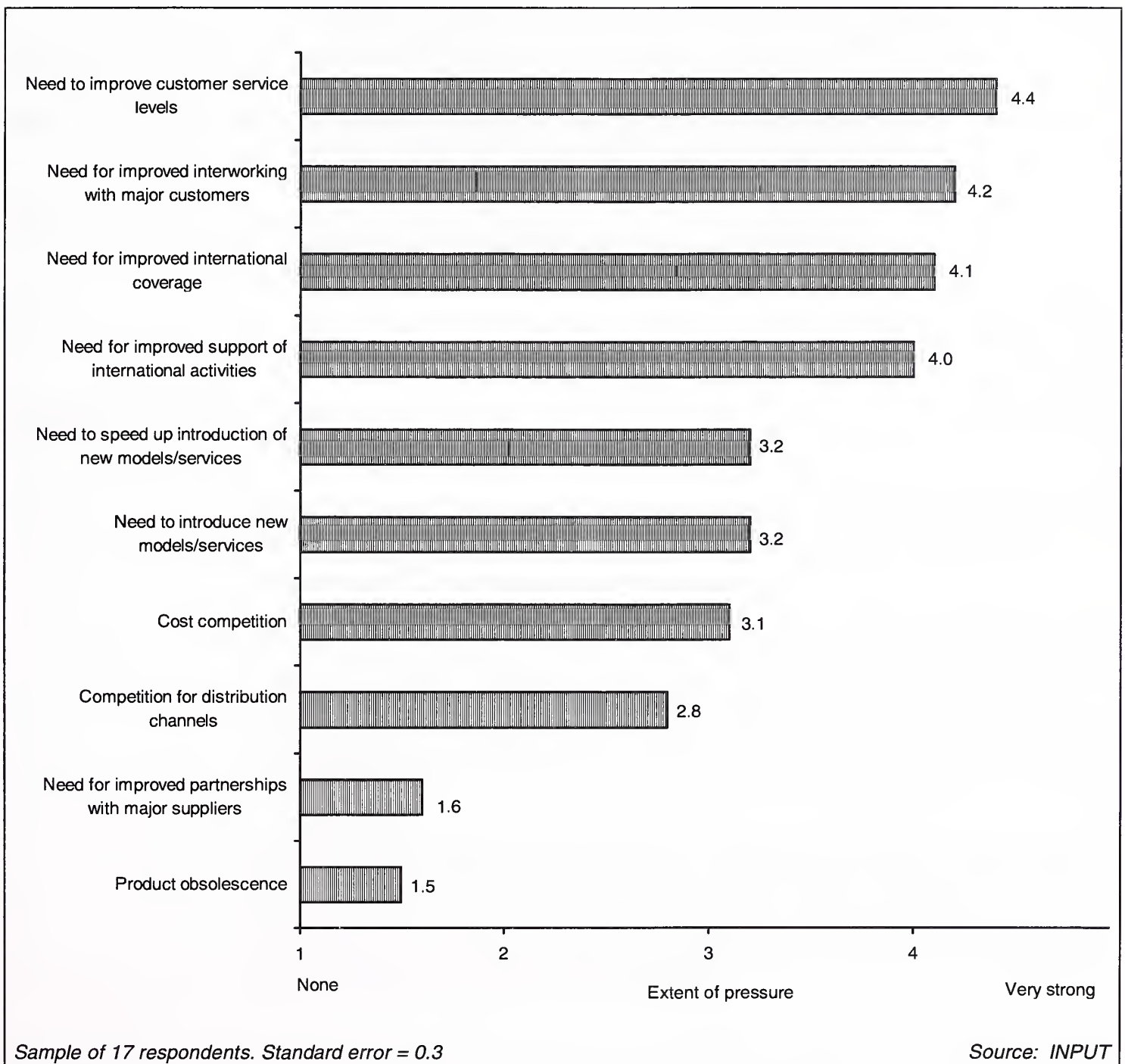
B

Market Drivers in Banking

Exhibit IV-2 lists the principal business pressures on the European banking and finance sector.

Exhibit IV-2

Principal Business Pressures: Banking and Finance



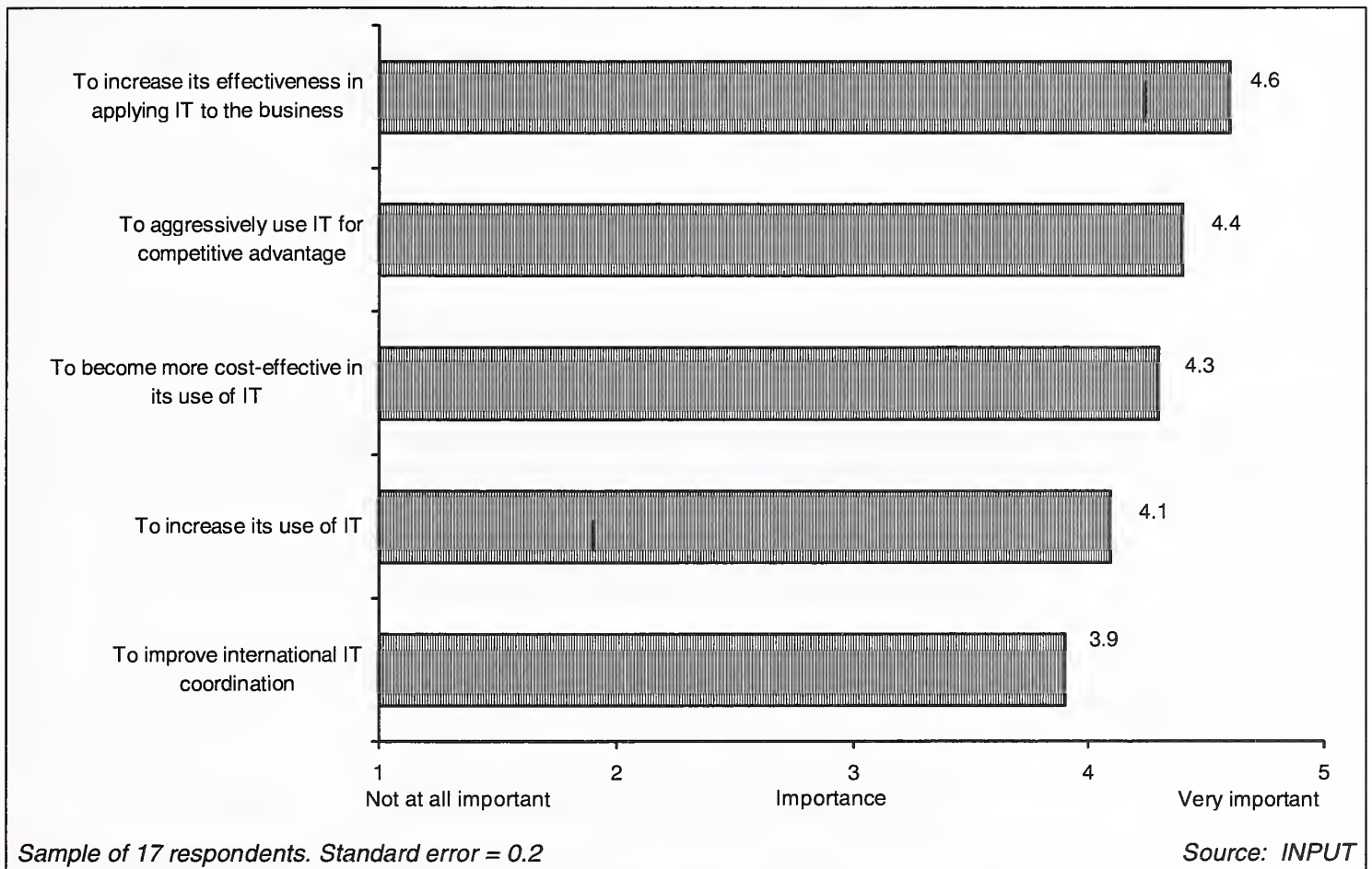
Overall, there is widespread recognition of an increase in competition in the banking sector. Some of this competition is coming from new players moving into financial services and from foreign institutions. Financial institutions are increasingly seeking to expand their international activities.

While there is a recognition of the need for improved cost-effectiveness of service delivery in the banking and finance sector, the principal focus is on the need to improve customer service. Accordingly, many banking organisations wish to use information technology primarily to strengthen their service provision and their relationships with major clients rather than reduce internal costs.

Another major theme in the banking sector is the desirability of using IT to introduce new services. However, a number of organisations have historically found IT to be an impediment rather than a facilitator in this respect.

The most important IT challenges facing organisations in the banking and finance sector are listed in Exhibit IV-3.

Exhibit IV-3

Most Important IT Challenges: Banking and Finance

These exhibits indicate that the major challenge facing organisations in the banking sector is the need to apply IT proactively in support of an organisation's business development goals.

Overall, the IT departments within banking institutions are perceived to combine a high level of business understanding with a strong knowledge of new technology. While there remains scope to improve the cost-effectiveness of IT departments, their major failings are the time taken to develop and implement new applications and their comparative focus on head office.

The principal opportunities created for vendors are services that enable the client to implement systems more rapidly and in a manner which extends their geographic support. Accordingly, the major growth areas in the banking and finance sector are applications management outsourcing, and client/server systems management.

Banking organisations will require client/server systems management support to assist them in managing their geographical complexity. This need will increase in importance as financial institutions extend their services outside their own countries of origin and will encompass both desktop services and wide area network management.

Exhibit IV-4 compares the perceived importance of a number of IT functions with the current level of satisfaction with their performance in-house.

Exhibit IV-4

**Importance Vs. Satisfaction with IT Functions Performed
In-house: Banking and Finance**

Function	Importance	Satisfaction	Difference
Support of branch locations	3.8	3.2	0.6
Provision and support for wide area connectivity	3.8	3.3	0.5
Day-to-day support of the desktop environment	3.7	3.3	0.4
Day-to-day support of LANs	3.7	3.4	0.3
Application selection and integration	4.2	3.9	0.3

Source: INPUT

This again confirms that one of the major issues within the banking and finance sector is the support of distributed IT infrastructures.

However, at present, many organisations remain to be convinced that the use of an external supplier is an appropriate solution to their problems in supporting distributed infrastructures.

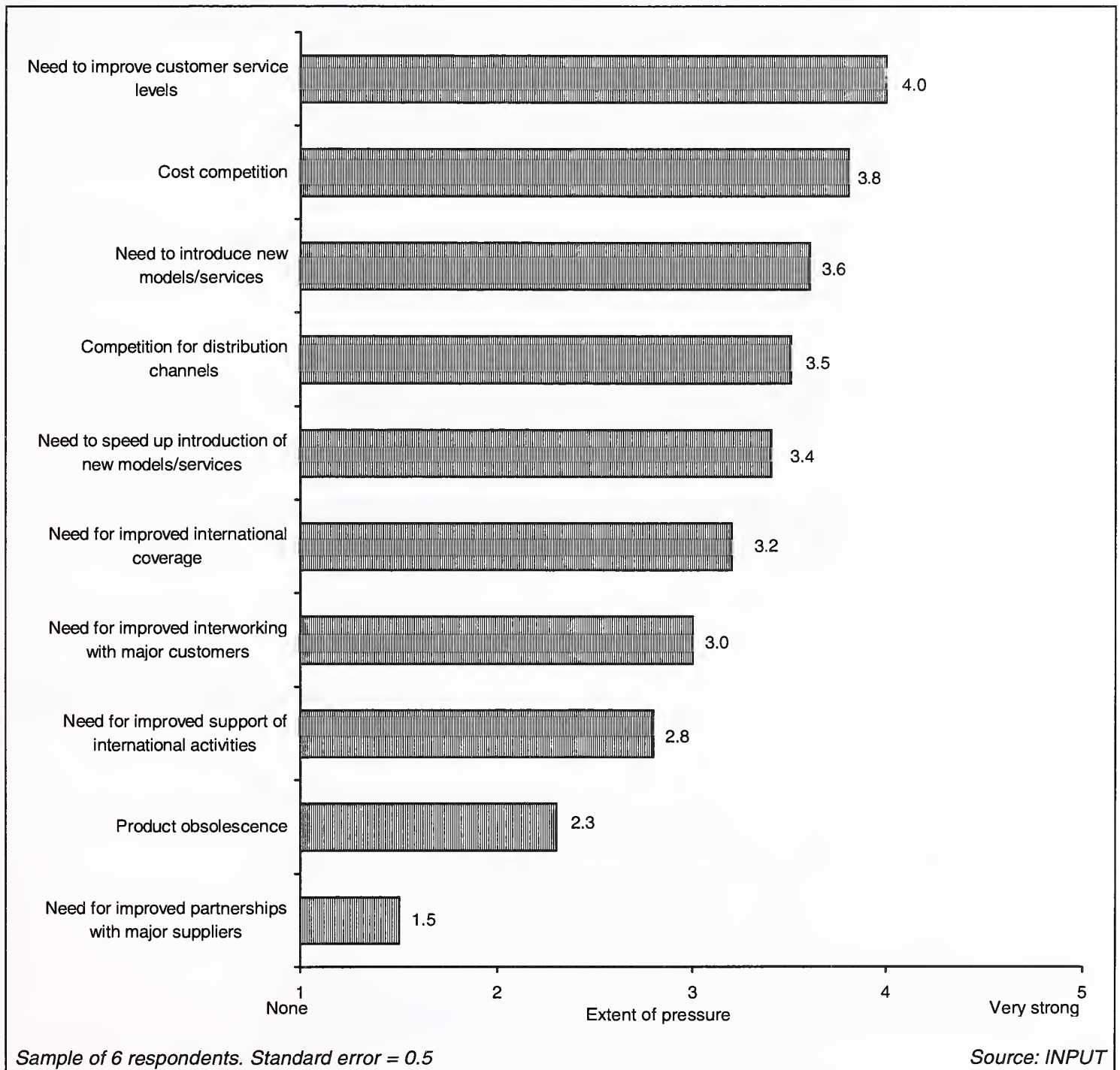
C

Market Drivers in Insurance

Exhibit IV-5 lists the principal business pressures on the European insurance sector.

Exhibit IV-5

Principal Business Pressures: Insurance



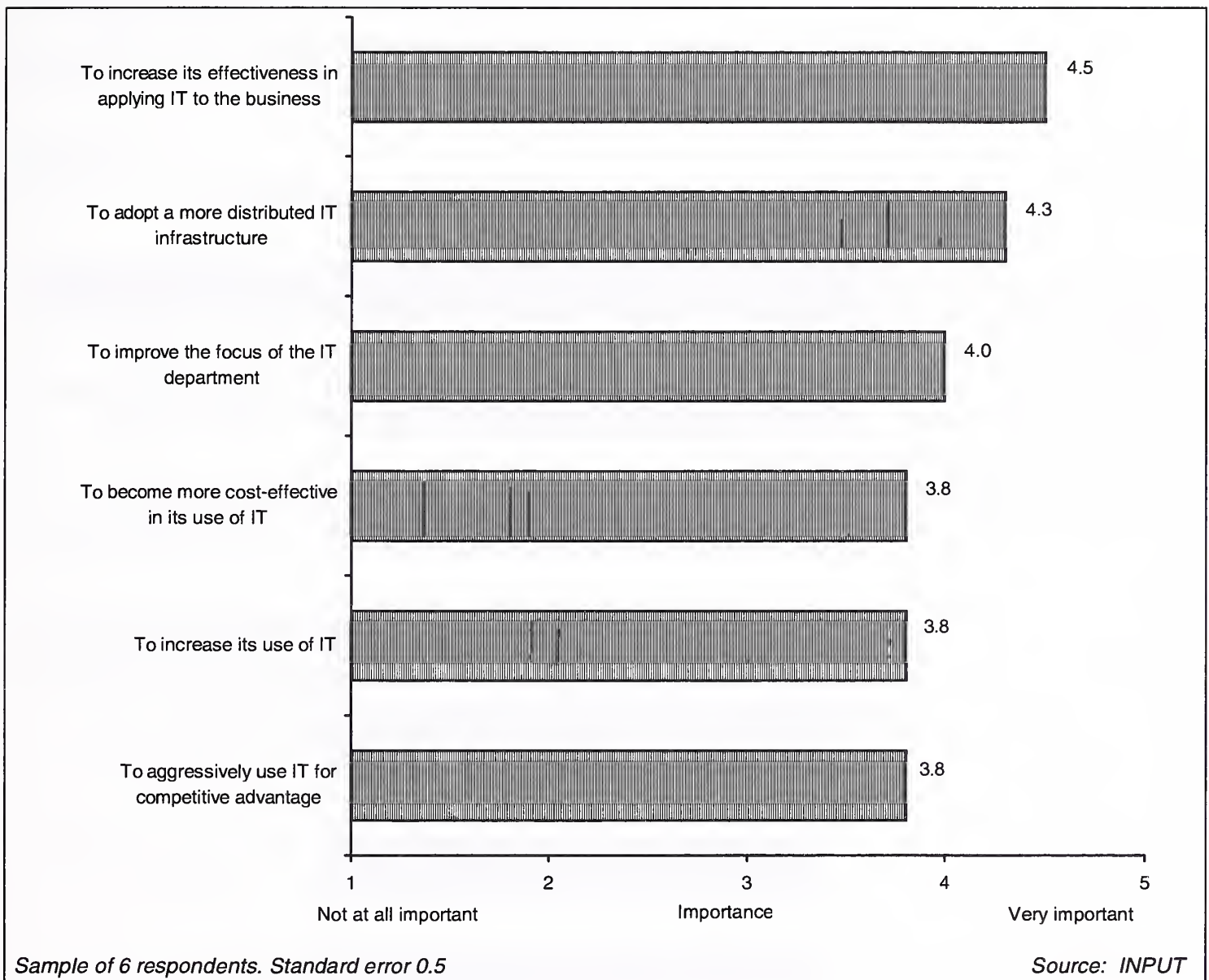
The insurance sector has a major need to improve customer service levels in common with the banking and finance sector. However, in other respects the major business pressures faced by the insurance sector are quite different from those faced by the banking and finance sector.

With the advent of direct selling and heavily automated competitors, much of the traditional insurance sector is experiencing considerable cost pressure and a need to introduce more competitive services and means of delivery. Overall, the insurance sector shows the highest level of need of any of the industry sectors to introduce new products and services and to reduce the lead times for their introduction.

This is likely to involve major restructuring of the industry and create major opportunities for IT outsourcing and customer services vendors alike.

The most important IT challenges facing organisations in the insurance sector are listed in Exhibit IV-6.

Exhibit IV-6

Most Important IT Challenges: Insurance

Within the insurance sector, there is a continuing emphasis on interoperability. This includes linking legacy systems and providing greater flexibility through use of LANs. Most assurance products have lengthy lifetimes and so many insurance companies will be dependent on their legacy systems for many years. As a result, the insurance sector has been comparatively slow to move to more distributed IT architectures. It is probable that organisations in the insurance sector will typically retain their mainframes but will increasingly supplement their mainframe-based systems with more distributed applications.

Overall, the IT departments within insurance companies are perceived to be reasonably effective in applying IT to business problems but lack the strong knowledge of new technology found in the banking sector. In

addition, IT departments are seen to focus excessively on operations support and take too long to develop and implement new applications.

Exhibit IV-7 compares the perceived importance of a number of IT functions with the current level of satisfaction with their performance in-house.

Exhibit IV-7

**Importance Vs Satisfaction with IT Functions Performed
In-house: Insurance**

Function	Importance	Satisfaction	Difference
Application selection and integration	4.0	3.2	0.8
Provision and support for wide area connectivity	3.7	3.5	0.2
Day-to-day support of LANs	3.5	3.5	0.0
Day-to-day support of the desktop environment	3.3	3.3	0.0
Support of branch locations	2.8	3.2	-0.4

Source: INPUT

This again emphasises that the introduction of new systems is the major challenge facing the insurance sector. At the same time, the integration of new applications with existing systems is a cause of concern.

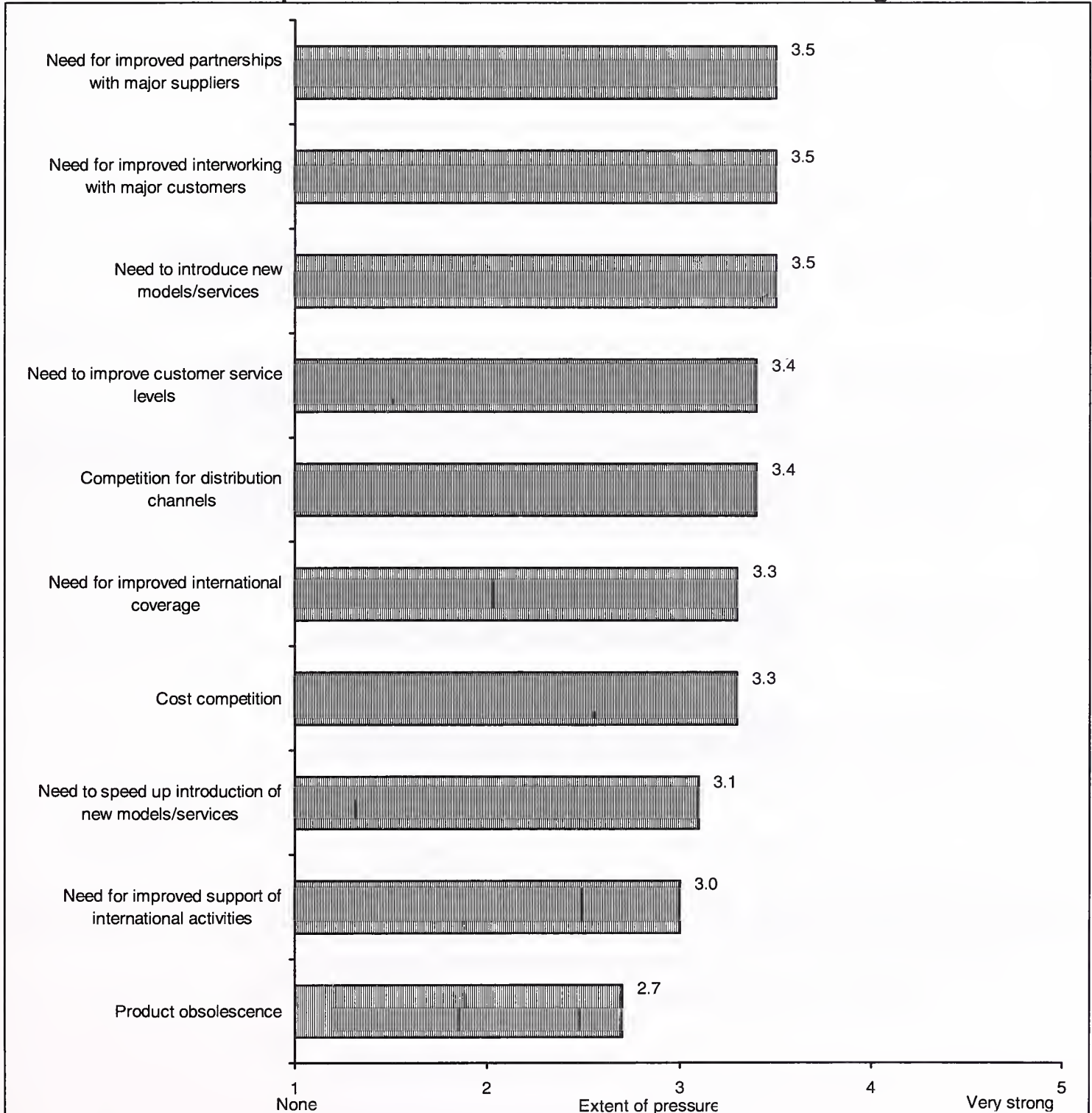
D

Market Drivers in Discrete Manufacturing

Exhibit IV-8 lists the principal business pressures on the European discrete manufacturing sector.

Exhibit IV-8

Principal Business Pressures: Discrete Manufacturing



Sample of 23 respondents. Standard error = 0.3

Source: INPUT

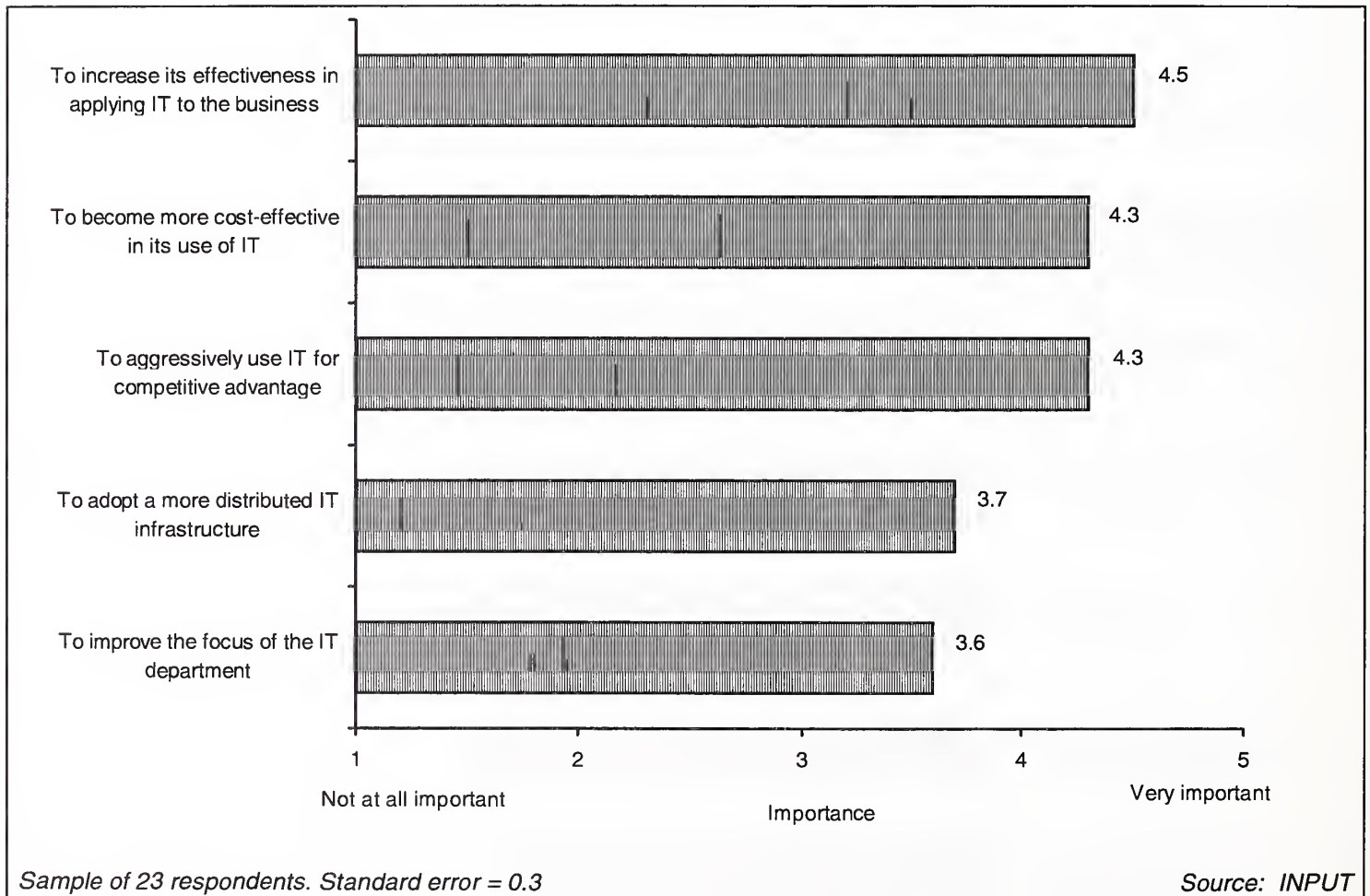
Organisations in the discrete manufacturing sector currently place considerable emphasis on electronic commerce and improving their ability to work closely with both suppliers and customers. Information technology is perceived as a key enabler in facilitating the sharing of information with both customers and suppliers.

In addition, discrete manufacturing companies in Europe still face considerable cost pressure from foreign companies and strongly perceive the need to reduce their costs.

The most important IT challenges facing organisations in the discrete manufacturing sector are listed in Exhibit IV-9.

Exhibit IV-9

Most Important IT Challenges: Discrete Manufacturing



The discrete manufacturing sector is still endeavouring to move away from centralised architectures towards a more distributed approach. Hence, distributed systems development, including the installation and support of new client/server systems continues to remain a key opportunity. For the same reasons, transition outsourcing (involving transferring the management of mainframe operations to an outsourcing vendor, while new, more distributed systems are being developed) has been commonplace in the discrete manufacturing sector.

Overall, the level of satisfaction with the performance of IT departments within the discrete manufacturing sector tends to be low. This is particularly true in terms of their ability to apply IT to the business, including areas such as their knowledge of business issues and the ability to apply this knowledge pro-actively.

Exhibit IV-10 compares the perceived importance of a number of IT functions with the current level of satisfaction with their performance in-house.

Exhibit IV-10

**Importance Vs. Satisfaction with IT Functions Performed In-house:
Discrete Manufacturing**

	Importance	Satisfaction	Difference
Application selection and integration	4.0	3.0	1.0
Provision and support for wide area connectivity	3.7	2.8	0.9
Day-to-day support of the desktop environment	3.9	3.1	0.8
Day-to-day support of LANs	4.0	3.3	0.7
Support of branch locations	3.6	3.1	0.5

Source: INPUT

In particular, satisfaction levels are low for all functions concerned with the identification, development and implementation of new systems and for support of distributed architectures.

INPUT's outsourcing research reveals that there is no strong desire to retain any IT functions in-house in the discrete manufacturing sector. There is neither the desire to maintain a competence in legacy systems such as that found in the insurance sector, nor a particularly strong desire to refocus the in-house IT department on new systems development.

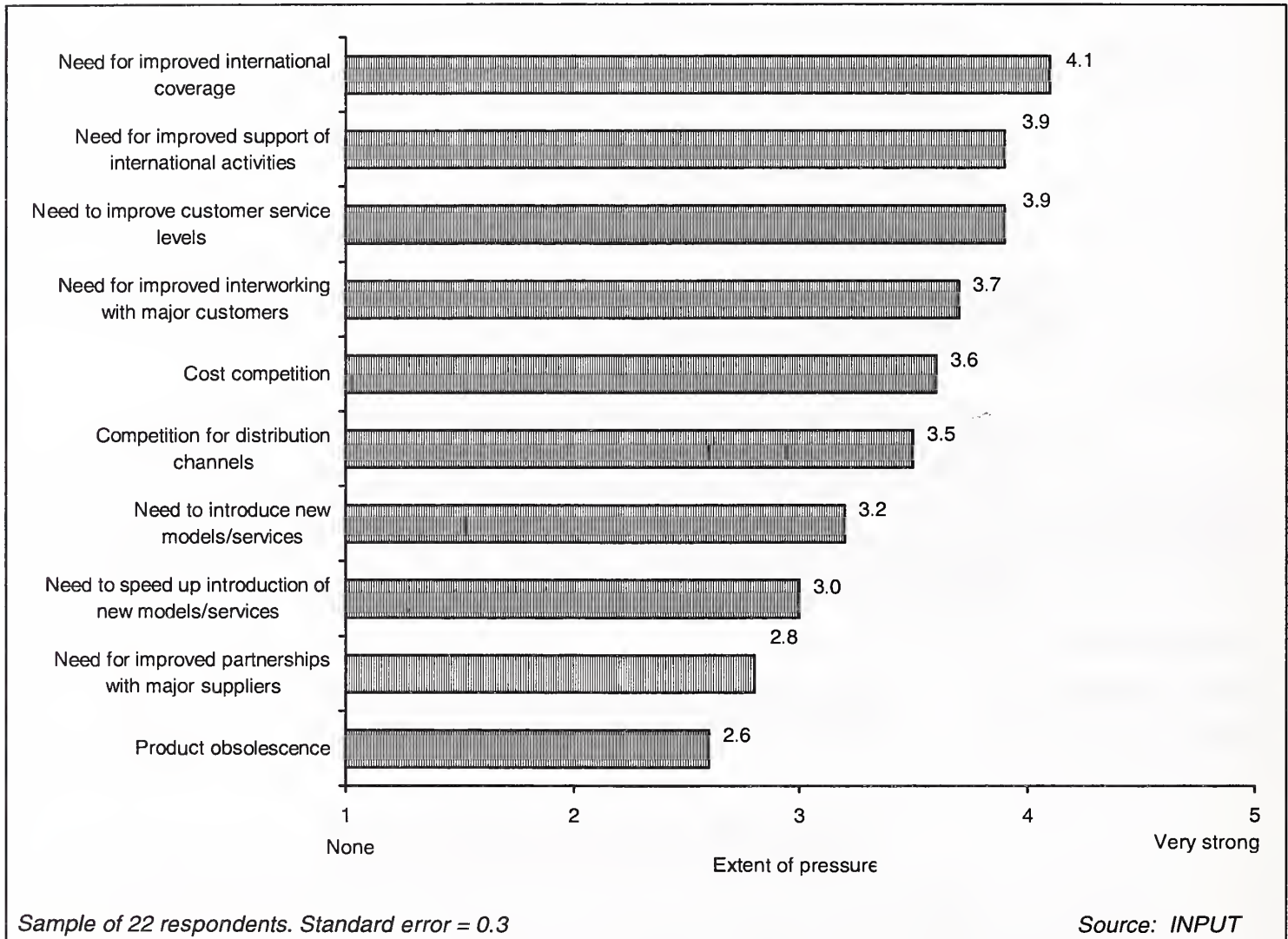
E

Market Drivers in Process Manufacturing

Exhibit IV-11 lists the principal business pressures on the European process manufacturing sector.

Exhibit IV-11

Principal Business Pressures: Process Manufacturing

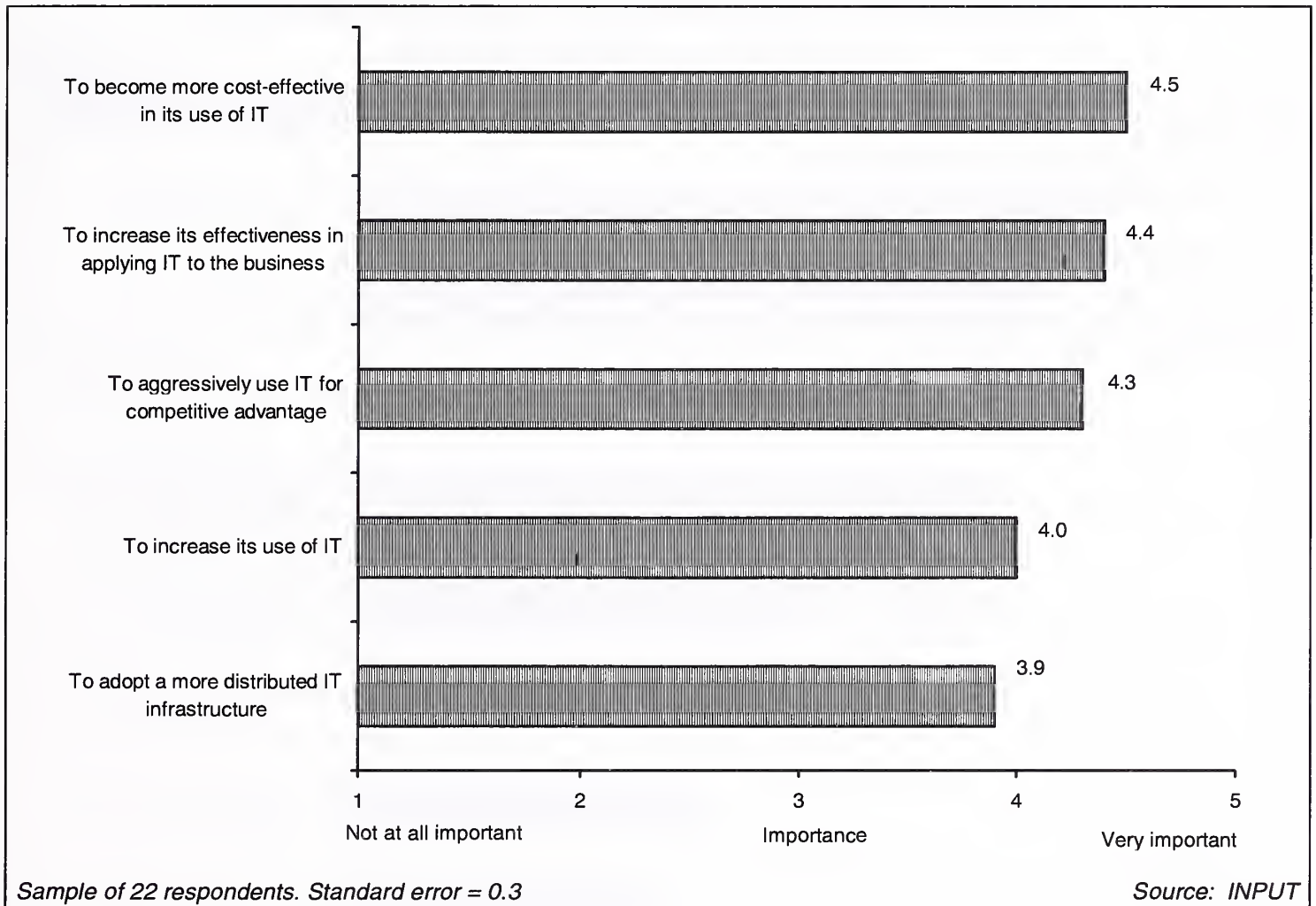


The principal priority for organisations in the process manufacturing sector is the need to develop an improved international coverage. Secondly, these organisations place an emphasis on improved interworking, and support, for their major customers. Maintaining relationships with their suppliers tends to be less important for process manufacturing companies than for discrete manufacturing companies. Accordingly, whereas much of the emphasis in electronic commerce is supplier-facing in the discrete manufacturing sector, it tends to be predominantly customer-facing in the process manufacturing sector.

The most important IT challenges facing organisations in the process manufacturing sector are listed in Exhibit IV-12.

Exhibit IV-12

Most Important IT Challenges: Process Manufacturing



Organisations in the process manufacturing sector exhibit a particularly strong need to cost-effectively increase their use of IT, a desire that has traditionally led to the process manufacturing sector having a comparatively high propensity for outsourcing. However, the overall emphasis within the sector is on aggressively applying IT to the business rather than reducing the level of IT spending.

The overall level of satisfaction with the performance of in-house IT departments is comparatively low in the process manufacturing sector, as in the discrete manufacturing sector. IT departments in the process manufacturing sector are typically perceived to be focused on systems provision rather than operations support but still exhibit weaknesses in applying IT to the business and in the rapid provision of new systems.

Exhibit IV-13 compares the perceived importance of a number of IT functions with the current level of satisfaction with their performance in-house.

Exhibit IV-13

**Importance Vs. Satisfaction with IT Functions Performed
In-house: Process Manufacturing**

Function	Importance	Satisfaction	Difference
Provision and support for wide area connectivity	3.9	2.8	1.1
Support of branch locations	4.1	3.3	0.8
Day-to-day support of LANs	3.6	3.0	0.6
Day-to-day support of the desktop environment	3.7	3.1	0.6
Application selection and integration	3.7	3.2	0.5

Source: INPUT

Organisations in the process manufacturing sector tend to have a broad geographic coverage both nationally and internationally. Accordingly, enterprises in this sector have been at the forefront in outsourcing the management of their distributed systems, both LANs and wide area networks.

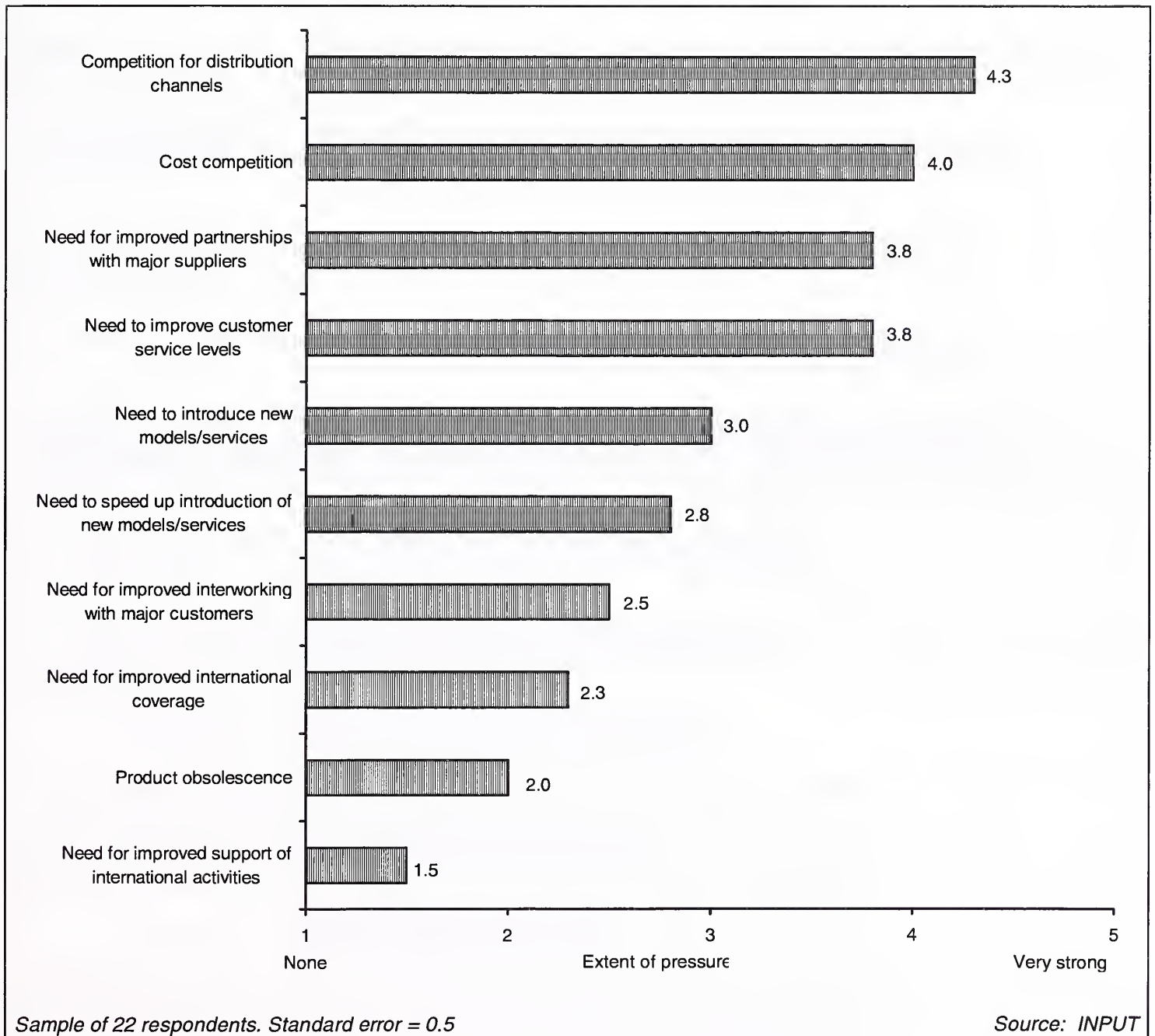
F

Market Drivers in the Retail

Exhibit IV-14 lists the principal business pressures on the European retail sector.

Exhibit IV-14

Principal Business Pressures: Retail



Organisations in the retail sector perceive themselves to be facing a high level of cost competition and much of their emphasis is on reducing their cost base. In this context, considerable emphasis is placed on improving their partnerships with major suppliers. In the retail sector, the emphasis on electronic commerce is focused strongly on their suppliers rather than their partners complementing the pattern seen for organisations in the process manufacturing sector that typically sell their products through retail outlets. However, at present, the geographic emphasis of retail organisations remains primarily national rather than international.

The priorities for IT in the retail sector are in improving its application to key areas of the business such as point-of-sale and sales analyses. As in the process manufacturing sector, the emphasis is firmly on cost-effectively increasing the application of IT to the business rather than reducing the absolute level of IT expenditure.

Exhibit IV-15 compares the perceived importance of a number of IT functions with the current level of satisfaction with their performance in-house.

Exhibit IV-15

Importance Vs. Satisfaction with IT Functions Performed In-house: Retail

Function	Importance	Satisfaction	Difference
Day-to-day support of the desktop environment	3.8	2.6	1.2
Support of branch locations	4.2	3.2	1.0
Provision and support for wide area connectivity	3.6	3.0	0.6
Application selection and integration	3.8	3.2	0.6
Day-to-day support of LANs	3.2	2.8	0.4

Source: INPUT

There is a significant need for improvement in the level of support for desktop/branch systems within retail outlets. However, support for the branch systems is currently perceived to be a key activity that should be provided by in-house personnel. This may be due to the unique nature of many organisations' in-store systems.

Similarly, the selection and implementation of new systems is typically not performed to a satisfactory standard in-house, but is perceived to be a critical activity that should be retained in-house.

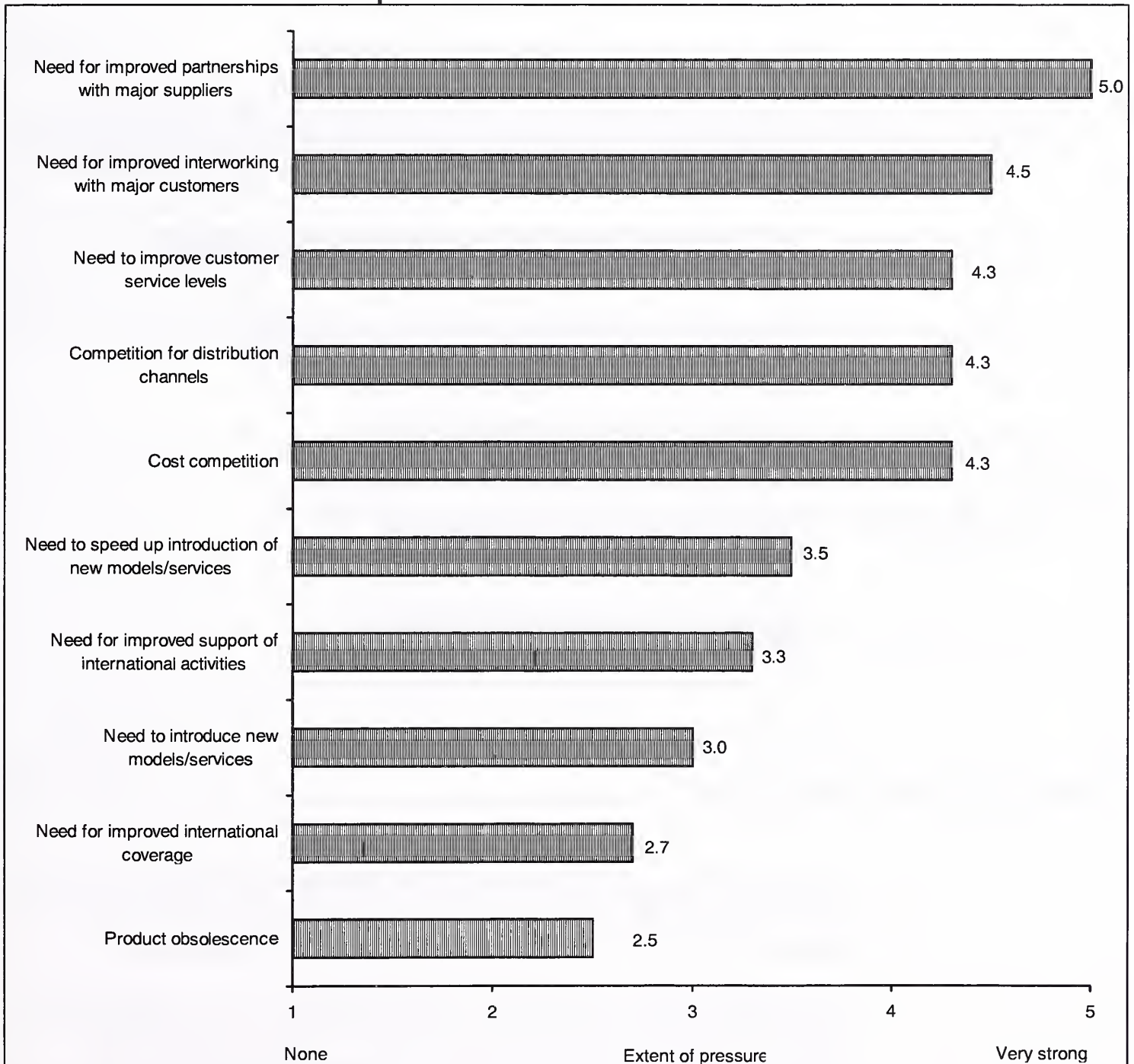
G

Market Drivers in Wholesale

Exhibit IV-16 lists the principal business pressures on the European wholesale sector.

Exhibit IV-16

Principal Business Pressures: Wholesale



Sample of 4 respondents. Standard error = 0.5

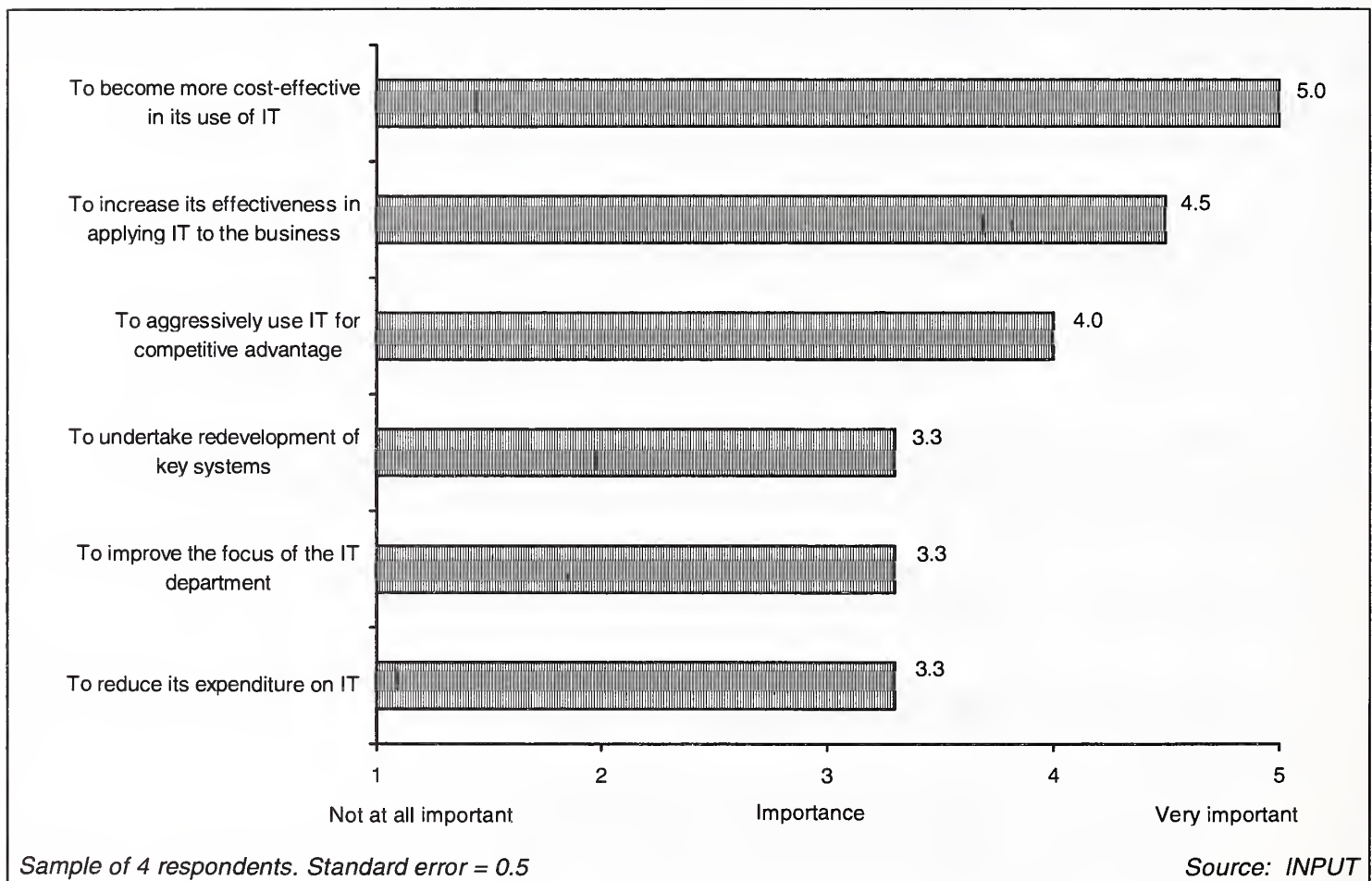
Source: INPUT

The wholesale distribution sector is facing considerable competition and perceives a very powerful need to reduce the cost of internal business processes. At the same time, organisations in the sector are endeavouring to strengthen their links with both customers and suppliers.

The most important IT challenges facing organisations in the wholesale sector are listed in Exhibit IV-17.

Exhibit IV-17

Most Important IT Challenges: Wholesale



Overall, the wholesale sector exhibits the highest cost pressure on the use of IT, with comparatively strong emphases on becoming more cost-effective in the use of IT and on reducing actual IT expenditure.

On the other hand, organisations within this sector show comparatively less enthusiasm for increasing the use of IT. This may mean that organisations in the wholesale sector are more prone to seek cost reduction from full or selective outsourcing arrangements with vendors, and will be less inclined to use service partners as a major means of redeveloping their use of IT.

IT departments within the wholesale sector are perceived to have a strong business orientation and understanding but, as elsewhere, to lack the ability to translate this understanding into innovative systems and to implement new systems rapidly and effectively.

Exhibit IV-18 compares the perceived importance of a number of IT functions with the current level of satisfaction with their performance in-house.

Exhibit IV-18

Importance Vs. Satisfaction with IT Functions Performed In-house: Wholesale

Function	Importance	Satisfaction	Difference
Day-to-day support of LANs	4.0	3.0	1.0
Day-to-day support of the desktop environment	4.5	3.5	1.0
Provision and support for wide area connectivity	3.3	2.8	0.5
Support of branch locations	3.3	2.8	0.5
Application selection and integration	3.0	2.8	0.2

Source: INPUT

This suggests that the major opportunities within the wholesale sector will be related to IT infrastructure management. Overall, there are signs of a significant need for datacentre management in addition to desktop services and wide area network management.

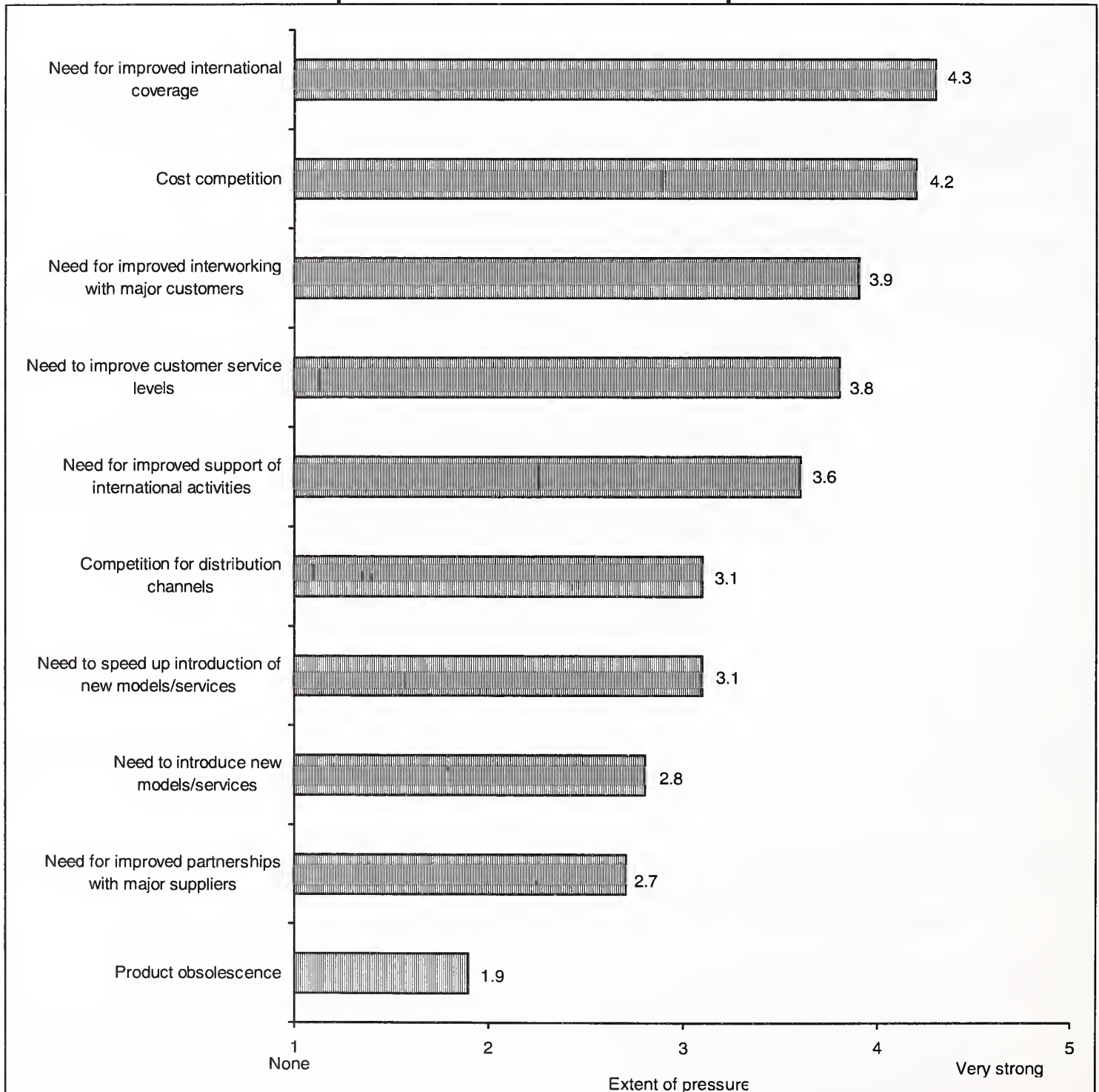
H

Market Drivers in Transportation

Exhibit IV-19 lists the principal business pressures on the European transportation sector.

Exhibit IV-19

Principal Business Pressures: Transportation



Sample of 11 respondents. Standard error = 0.4

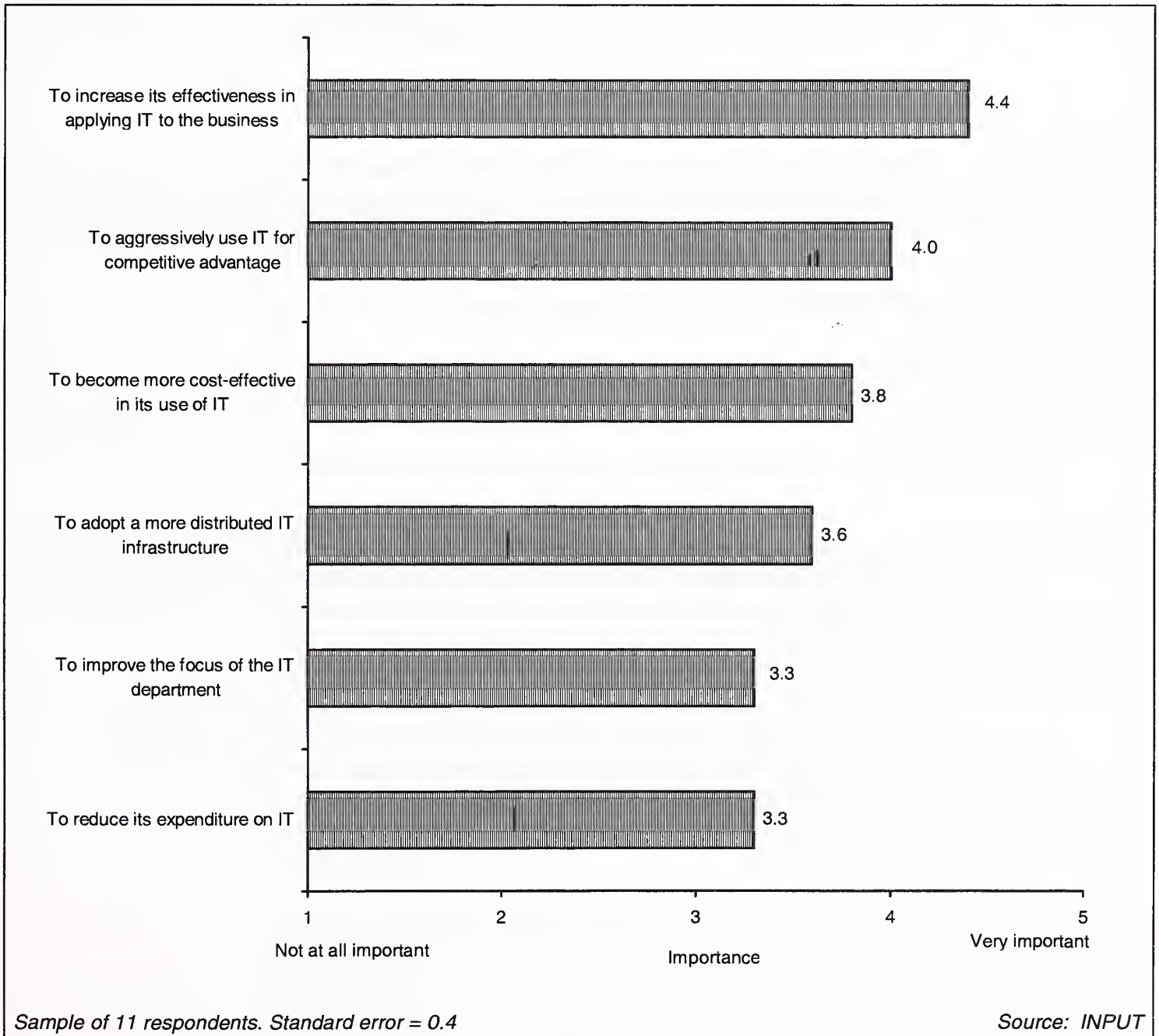
Source: INPUT

Organisations in the transportation sector want to improve their customer service capability on an international basis by increasing the flexibility of their business processes. Simultaneously, they perceive a need to reduce their internal costs.

The most important IT challenges facing organisations in the transportation sector are listed in Exhibit IV-20.

Exhibit IV-20

Most Important IT Challenges: Transportation



Organisations perceive the key to meeting their goals as improved and more outward-facing application of IT. However, this is not typically expected to be achieved by increasing the use of IT.

IT departments within the transportation sector receive comparatively high ratings relative to their counterparts in other sectors. Their major weaknesses are perceived to be the speed of introduction of new applications to the organisation and their ability to focus on the provision of new systems rather than operational support for existing systems.

Exhibit IV-21 compares the perceived importance of a number of IT functions with the current level of satisfaction with their performance in-house.

Exhibit IV-21

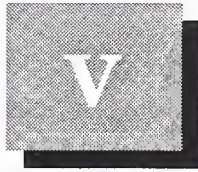
Importance Vs. Satisfaction with IT Functions Performed In-house: Transportation

Function	Importance	Satisfaction	Difference
Provision and support for wide area connectivity	4.4	3.5	0.9
Application selection and integration	3.9	3.1	0.8
Support of branch locations	4.0	3.3	0.7
Day-to-day support of LANs	3.8	3.3	0.5
Day-to-day support of the desktop environment	3.8	3.4	0.4

Source: INPUT

Despite the relatively high perception of the in-house IT departments' ability to apply IT to the business, there is typically a considerable shortfall between importance and satisfaction across a wide range of functions.

Overall, organisations in the transportation sector exhibit a high propensity to outsource. Because of its distributed nature, the transportation sector also offers strong opportunities in wide area network management and desktop services.



Market Analysis and Forecast by Country

This chapter contains quantitative analyses of the customer services market (for the period 1996 to 2001) in:

- Europe as a whole (expressed in US dollars and ECUs)
- 16 individual European country markets (expressed in local currencies and US dollars)
- Central and Eastern Europe (expressed in US dollars and ECUs).

A

Changes in Country Market Analysis and Forecast Since 1995

The country analysis and forecast information in this chapter updates the information published in the report *Customer Services Market Analysis And Trends, Europe 1995-2000*.

The latest information reflects changes in market sizes and forecast growth rates, based on INPUT's continuous research in the individual country markets. There are changes within individual delivery modes for most countries.

Note, in particular, that the actual 1995 market size for each service sector varies from the value forecast last year for several reasons (not simply because the growth rate for 1994/5 was different from that forecast). Variance ranging from 12% in the size of the equipment maintenance sector, to approximately 70% for "other professional services" can be accounted for by a combination of factors:

- Local exchange rate fluctuations which become evident when the market value is expressed in US dollars
- More accurate market evaluation, based on closer understanding of market conditions in some of the smaller European countries
- The tendency for many vendors to reallocate revenues, mostly in favour of professional services sectors.

For some countries, this year's market analysis incorporates not only adjustments to the estimated base year market size (1995), but changes in growth rate projections for the five year period 1996 to 2001. This is particularly true of the sectors Systems Software Support and Other Professional Services.

B**Country Market Database**

Exhibit V-1

Customer Services Market Forecast, Europe 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	13541	-4	13028	12487	11914	11356	10843	10330	-5
Environmental Services	9025	7	9695	10408	11191	12136	13140	14214	8
Systems Software Support	2252	5	2359	2481	2634	2789	2939	3096	6
Education & Training	3153	6	3342	3594	3867	4136	4424	4731	7
Business Continuity Services	712	14	810	937	1088	1259	1458	1696	16
Other Professional Services	1761	15	2019	2321	2663	3074	3545	4098	15
Total Customer Services	30,443	3	31,253	32,228	33,357	34,749	36,350	38,165	4

Source: INPUT

Exhibit V-2

Customer Services Market Forecast, Europe 1996-2001 (ECU Millions)

Market Size ECU Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	17339	-4	16682	15989	15255	14540	13883	13226	-5
Environmental Services	11556	7	12413	13327	14329	15539	16825	18199	8
Systems Software Support	2883	5	3020	3177	3373	3570	3763	3964	6
Education & Training	4037	6	4279	4602	4951	5295	5665	6058	7
Business Continuity Services	911	14	1037	1200	1393	1612	1867	2172	16
Other Professional Services	2254	15	2585	2971	3409	3936	4539	5248	15
Total Customer Services	38,980	3	40,017	41,266	42,710	44,493	46,542	48,867	4

Source: INPUT

Exhibit V-3

Customer Services Market Forecast, Austria 1996-2001 (Sch Millions)

Market Size Sch Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	2840	-2	2783	2700	2619	2514	2413	2293	-4
Environmental Services	1850	7	1980	2118	2288	2471	2668	2882	8
Systems Software Support	450	5	473	496	516	531	547	558	3
Education & Training	440	4	458	476	495	510	525	551	4
Business Continuity Services	75	18	89	107	131	159	196	241	22
Other Professional Services	310	12	347	378	413	450	504	564	10
Total Customer Services	5,965	3	6,129	6,275	6,460	6,635	6,854	7,089	3

Source: INPUT

Exhibit V-4

Customer Services Market Forecast, Austria 1996-2001 (US \$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	281	-2	276	267	259	249	239	227	-4
Environmental Services	183	7	196	210	226	245	264	285	8
Systems Software Support	45	5	47	49	51	53	54	55	3
Education & Training	44	4	45	47	49	50	52	55	4
Business Continuity Services	7	18	9	11	13	16	19	24	22
Other Professional Services	31	12	34	37	41	45	50	56	10
Total Customer Services	591	3	607	621	640	657	679	702	3

Source: INPUT

Exhibit V-5

Customer Services Market Forecast, Belgium 1996-2001 (BF Millions)

Market Size BF Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	12600	-5	11970	11252	10802	10370	9851	9359	-5
Environmental Services	7000	5	7350	7718	8181	8671	9192	9651	6
Systems Software Support	1988	3	2048	2130	2215	2325	2442	2564	5
Education & Training	2500	4	2600	2704	2839	2981	3130	3287	5
Business Continuity Services	334	11	371	419	478	549	632	733	15
Other Professional Services	1559	12	1746	1973	2249	2609	3053	3511	15
Total Customer Services	25,981	0	26,084	26,195	26,763	27,506	28,299	29,104	2

Source: INPUT

Exhibit V-6

Customer Services Market Forecast, Belgium 1996-2001 (US \$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	429	-5	407	383	367	353	335	318	-5
Environmental Services	238	5	250	263	278	295	313	328	6
Systems Software Support	68	3	70	72	75	79	83	87	5
Education & Training	85	4	88	92	97	101	106	112	5
Business Continuity Services	11	11	13	14	16	19	21	25	15
Other Professional Services	53	12	59	67	77	89	104	119	15
Total Customer Services	884	0	887	891	910	936	963	990	2

Source: INPUT

Exhibit V-7

Customer Services Market Forecast, Denmark 1996-2001 (DK Millions)

Market Size DK Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	1700	-2	1666	1599	1535	1459	1386	1303	-5
Environmental Services	1400	7	1498	1618	1731	1835	1945	2042	6
Systems Software Support	250	4	260	273	289	304	319	332	5
Education & Training	285	5	299	317	336	353	371	397	6
Business Continuity Services	25	17	29	35	44	55	69	86	24
Other Professional Services	255	12	286	320	358	408	462	522	13
Total Customer Services	3,915	3	4,038	4,163	4,294	4,414	4,551	4,681	3

Source: INPUT

Exhibit V-8

Customer Services Market Forecast, Denmark 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	307	-2	301	289	277	263	250	235	-5
Environmental Services	253	7	270	292	312	331	351	369	6
Systems Software Support	45	4	47	49	52	55	58	60	5
Education & Training	51	5	54	57	61	64	67	72	6
Business Continuity Services	5	17	5	6	8	10	12	15	24
Other Professional Services	46	12	52	58	65	74	83	94	13
Total Customer Services	707	3	729	751	775	797	821	845	3

Source: INPUT

Exhibit V-9

Customer Services Market Forecast, Eastern Europe 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	220	10	242	271	301	331	361	390	10
Environmental Services	60	20	72	86	104	129	167	217	25
Systems Software Support	14	17	16	19	22	26	32	39	19
Education & Training	48	22	59	73	92	109	128	152	21
Business Continuity Services	4	52	6	10	16	27	46	79	67
Other Professional Services	45	25	56	72	94	124	167	217	31
Total Customer Services	348	30	451	531	629	746	901	1,093	19

Source: INPUT

Exhibit V-10

Customer Services Market Forecast, Eastern Europe 1996-2001 (ECU Millions)

Market Size ECU Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	282	10	310	347	385	424	462	499	10
Environmental Services	77	20	92	111	133	165	214	278	25
Systems Software Support	18	17	21	24	28	34	41	50	19
Education & Training	61	22	75	94	118	139	164	194	21
Business Continuity Services	5	52	8	12	21	35	59	101	67
Other Professional Services	58	25	72	92	120	159	214	278	31
Total Customer Services	445	30	578	680	805	956	1,154	1,400	19

Source: INPUT

Exhibit V-11

Customer Services Market Forecast, Finland 1996-2001 (FM Millions)

Market Size FM Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	960	-2	941	903	867	833	791	751	-4
Environmental Services	670	8	724	781	844	903	984	1073	8
Systems Software Support	155	4	161	166	173	181	196	213	6
Education & Training	150	5	158	165	172	181	190	201	5
Business Continuity Services	60	17	70	84	99	115	137	162	18
Other Professional Services	145	15	167	188	215	245	282	318	14
Total Customer Services	2,140	4	2,220	2,288	2,369	2,458	2,580	2,719	4

Source: INPUT

Exhibit V-12

Customer Services Market Forecast, Finland 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	221	-2	217	208	200	192	182	173	-4
Environmental Services	154	8	167	180	194	208	227	247	8
Systems Software Support	36	4	37	38	40	42	45	49	6
Education & Training	35	5	36	38	40	42	44	46	5
Business Continuity Services	14	17	16	19	23	27	32	37	18
Other Professional Services	33	15	38	43	49	56	65	73	14
Total Customer Services	493	4	512	527	546	566	594	626	4

Source: INPUT

Exhibit V-13

Customer Services Market Forecast, France 1996-2001 (FF Millions)

Market Size FF Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	11800	-6	11092	10426	9801	9311	8845	8315	-6
Environmental Services	8000	8	8640	9331	9984	10683	11324	11891	7
Systems Software Support	1900	5	1995	2075	2179	2309	2448	2619	6
Education & Training	3900	6	4134	4423	4733	5017	5318	5690	7
Business Continuity Services	680	12	762	861	981	1109	1242	1391	13
Other Professional Services	1150	12	1288	1443	1630	1842	2063	2311	12
Total Customer Services	27,430	2	27,911	28,559	29,308	30,271	31,240	32,216	3

Source: INPUT

Exhibit V-14

Customer Services Market Forecast, France 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	2413	-6	2268	2132	2004	1904	1809	1700	-6
Environmental Services	1636	8	1767	1908	2042	2185	2316	2432	7
Systems Software Support	389	5	408	424	446	472	501	536	6
Education & Training	798	6	845	905	968	1026	1088	1164	7
Business Continuity Services	139	12	156	176	201	227	254	284	13
Other Professional Services	235	12	263	295	333	377	422	473	12
Total Customer Services	5,609	2	5,708	5,840	5,993	6,190	6,389	6,588	3

Source: INPUT

Exhibit V-15

Customer Services Market Forecast, Germany 1996-2001 (DM Millions)

Market Size DM Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	4000	-5	3800	3572	3322	3089	2904	2759	-6
Environmental Services	2850	7	3050	3263	3524	3876	4264	4690	9
Systems Software Support	745	5	782	829	896	940	978	1017	5
Education & Training	1200	6	1272	1386	1497	1602	1714	1817	7
Business Continuity Services	240	10	264	290	325	364	408	457	12
Other Professional Services	420	12	470	532	606	703	815	954	15
Total Customer Services	9,455	2	9,638	9,872	10,170	10,575	11,083	11,694	4

Source: INPUT

Exhibit V-16

Customer Services Market Forecast, Germany 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	2797	-5	2657	2498	2323	2160	2031	1929	-6
Environmental Services	1993	7	2133	2282	2464	2711	2982	3280	9
Systems Software Support	521	5	547	580	626	658	684	711	5
Education & Training	839	6	890	970	1047	1120	1199	1271	7
Business Continuity Services	168	10	184	203	227	255	285	319	12
Other Professional Services	294	12	329	372	424	492	570	667	15
Total Customer Services	6,612	2	6,740	6,904	7,112	7,395	7,751	8,178	4

Source: INPUT

Exhibit V-17

Customer Services Market Forecast, Greece 1996-2001 (Dra Millions)

Market Size Dra Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	8100	1	8181	7854	7461	7163	6876	6532	-4
Environmental Services	1050	7	1124	1202	1310	1428	1557	1712	9
Systems Software Support	1720	8	1858	2006	2187	2405	2646	2937	10
Education & Training	1900	6	2014	2135	2263	2421	2639	2903	8
Business Continuity Services	200	20	240	298	369	461	581	727	25
Other Professional Services	750	13	848	975	1121	1311	1508	1749	16
Total Customer Services	13,720	4	14,264	14,469	14,711	15,190	15,807	16,561	3

Source: INPUT

Exhibit V-18

Customer Services Market Forecast, Greece 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	34	1	35	33	31	30	29	28	-4
Environmental Services	4	7	5	5	6	6	7	7	9
Systems Software Support	7	8	8	8	9	10	11	12	10
Education & Training	8	6	8	9	10	10	11	12	8
Business Continuity Services	1	20	1	1	2	2	2	3	25
Other Professional Services	3	13	4	4	5	6	6	7	16
Total Customer Services	58	4	60	61	62	64	67	70	3

Source: INPUT

Exhibit V-19

Customer Services Market Forecast, Ireland 1996-2001 (IR£ Millions)

Market Size IR£ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	48	-3	47	45	43	40	38	35	-6
Environmental Services	25	6	27	28	29	31	33	36	6
Systems Software Support	15	7	16	18	19	21	22	23	8
Education & Training	10	7	11	11	12	12	13	13	5
Business Continuity Services	5	13	5	6	7	8	10	12	17
Other Professional Services	15	17	18	20	23	27	32	38	17
Total Customer Services	118	4	123	127	133	139	147	157	5

Source: INPUT

Exhibit V-20

Customer Services Market Forecast, Ireland 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	77	-3	75	72	69	65	60	56	-6
Environmental Services	40	6	42	45	47	50	54	58	6
Systems Software Support	24	7	26	28	31	33	35	37	8
Education & Training	16	7	17	18	19	19	20	21	5
Business Continuity Services	7	13	8	10	11	13	15	19	17
Other Professional Services	24	17	28	32	37	43	51	61	17
Total Customer Services	188	4	196	204	213	223	236	252	5

Source: INPUT

Exhibit V-21

Customer Services Market Forecast, Italy 1996-2001 (Lira Billions)

Market Size Lira Billions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	2400	-2	2352	2305	2236	2146	2061	1957	-4
Environmental Services	1260	5	1323	1389	1459	1546	1639	1754	6
Systems Software Support	280	5	294	312	333	357	382	412	7
Education & Training	430	6	456	492	541	596	649	701	9
Business Continuity Services	65	18	77	91	106	122	140	160	16
Other Professional Services	290	12	325	361	404	452	511	588	13
Total Customer Services	4,725	2	4,826	4,950	5,079	5,219	5,381	5,572	3

Source: INPUT

Exhibit V-22

Customer Services Market Forecast, Italy 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	1509	-2	1479	1450	1406	1350	1296	1231	-4
Environmental Services	792	5	832	874	917	972	1031	1103	6
Systems Software Support	176	5	185	196	210	224	240	259	7
Education & Training	270	6	287	310	341	375	408	441	9
Business Continuity Services	41	18	48	57	67	77	88	100	16
Other Professional Services	182	12	204	227	254	284	321	370	13
Total Customer Services	2,972	2	3,035	3,113	3,194	3,282	3,385	3,504	3

Source: INPUT

Exhibit V-23

Customer Services Market Forecast, Netherlands 1996-2001 (Dfl Millions)

Market Size Dfl Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	1430	-4	1373	1318	1252	1190	1130	1074	-5
Environmental Services	1026	9	1118	1208	1304	1409	1536	1674	8
Systems Software Support	285	4	296	308	327	346	364	378	5
Education & Training	385	4	401	429	459	495	535	583	8
Business Continuity Services	65	16	75	89	105	123	143	168	17
Other Professional Services	330	18	389	463	533	607	693	790	15
Total Customer Services	3,522	4	3,653	3,815	3,980	4,170	4,401	4,666	5

Source: INPUT

Exhibit V-24

Customer Services Market Forecast, Netherlands 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	894	-4	858	824	783	744	706	671	-5
Environmental Services	641	9	699	755	815	880	960	1046	8
Systems Software Support	178	4	185	193	204	216	227	236	5
Education & Training	241	4	250	268	287	310	334	364	8
Business Continuity Services	41	16	47	56	66	77	90	105	17
Other Professional Services	206	18	243	290	333	380	433	493	15
Total Customer Services	2,201	4	2,283	2,384	2,487	2,606	2,750	2,916	5

Source: INPUT

Exhibit V-25

Customer Services Market Forecast, Norway 1996-2001 (NK Millions)

Market Size NK Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	1750	-1	1733	1698	1664	1614	1566	1519	-3
Environmental Services	1130	4	1175	1234	1296	1360	1442	1529	5
Systems Software Support	240	7	257	277	302	326	353	377	8
Education & Training	365	4	380	395	415	435	457	480	5
Business Continuity Services	70	15	81	95	111	129	148	170	16
Other Professional Services	175	9	191	208	229	258	295	339	12
Total Customer Services	3,723	2	3,815	3,907	4,016	4,124	4,260	4,414	3

Source: INPUT

Exhibit V-26

Customer Services Market Forecast, Norway 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	277	-1	274	269	263	255	248	240	-3
Environmental Services	179	4	186	195	205	215	228	242	5
Systems Software Support	38	7	41	44	48	52	56	60	8
Education & Training	58	4	60	62	66	69	72	76	5
Business Continuity Services	11	15	13	15	18	20	23	27	16
Other Professional Services	28	9	30	33	36	41	47	54	12
Total Customer Services	589	2	604	618	635	652	674	698	3

Source: INPUT

Exhibit V-27

Customer Services Market Forecast, Portugal 1996-2001 (Esc Millions)

Market Size Esc Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	12900	2	13158	13421	13690	13826	13965	14104	1
Environmental Services	5,500	9	5995	6535	7188	8122	9178	10463	12
Systems Software Support	1100	9	1199	1307	1425	1538	1662	1778	8
Education & Training	1000	15	1150	1277	1417	1587	1746	1920	11
Business Continuity Services	360	18	425	501	576	657	743	839	15
Other Professional Services	1660	12	1859	2045	2270	2565	2924	3392	13
Total Customer Services	22,520	6	23,786	25,086	26,566	28,297	30,217	32,497	6

Source: INPUT

Exhibit V-28

Customer Services Market Forecast, Portugal 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	87	2	88	90	92	93	94	95	1
Environmental Services	37	9	40	44	48	55	62	70	12
Systems Software Support	7	9	8	9	10	10	11	12	8
Education & Training	7	15	8	9	10	11	12	13	11
Business Continuity Services	2	18	3	3	4	4	5	6	15
Other Professional Services	11	12	12	14	15	17	20	23	13
Total Customer Services	151	6	160	168	178	190	203	218	6

Source: INPUT

Exhibit V-29

Customer Services Market Forecast, Spain 1996-2001 (Ptas Millions)

Market Size Ptas Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	73800	-2	72324	70878	68751	66689	64021	61460	-3
Environmental Services	43500	9	47415	51208	55305	61388	67527	74280	9
Systems Software Support	9600	5	10080	10685	11433	12462	13583	14670	8
Education & Training	8600	5	9030	9482	9861	10452	11393	12191	6
Business Continuity Services	1800	11	1998	2298	2688	3172	3775	4492	18
Other Professional Services	6440	16	7470	8666	10139	12268	14967	18409	20
Total Customer Services	143,740	3	148,317	153,215	158,177	166,431	175,267	185,502	5

Source: INPUT

Exhibit V-30

Customer Services Market Forecast, Spain 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	610	-2	598	586	568	551	529	508	-3
Environmental Services	360	9	392	423	457	507	558	614	9
Systems Software Support	79	5	83	88	94	103	112	121	8
Education & Training	71	5	75	78	81	86	94	101	6
Business Continuity Services	15	11	17	19	22	26	31	37	18
Other Professional Services	53	16	62	72	84	101	124	152	20
Total Customer Services	1,188	3	1,226	1,266	1,307	1,375	1,448	1,533	5

Source: INPUT

Exhibit V-31

Customer Services Market Forecast, Sweden 1996-2001 (SK Millions)

Market Size SK Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	3650	1	3687	3723	3761	3798	3836	3875	1
Environmental Services	2610	9	2845	3129	3380	3650	3942	4218	8
Systems Software Support	420	6	445	472	500	525	551	579	5
Education & Training	750	7	802	850	918	983	1051	1125	7
Business Continuity Services	120	12	134	152	172	196	225	261	14
Other Professional Services	430	14	490	569	660	765	895	1030	16
Total Customer Services	7,980	5	8,403	8,895	9,390	9,917	10,501	11,087	6

Source: INPUT

Exhibit V-32

Customer Services Market Forecast, Sweden 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	551	1	556	562	567	573	579	584	1
Environmental Services	394	9	429	472	510	551	595	636	8
Systems Software Support	63	6	67	71	75	79	83	87	5
Education & Training	113	7	121	128	139	148	159	170	7
Business Continuity Services	18	12	20	23	26	30	34	39	14
Other Professional Services	65	14	74	86	99	115	135	155	16
Total Customer Services	1,204	5	1,267	1,342	1,416	1,496	1,584	1,672	6

Source: INPUT

Exhibit V-33

Customer Services Market Forecast, Switzerland 1996-2001 (SF Millions)

Market Size SF Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	760	-1	752	752	752	730	708	687	-2
Environmental Services	620	6	657	690	725	768	814	863	6
Systems Software Support	110	4	114	118	123	132	142	152	6
Education & Training	165	4	172	177	184	193	203	215	5
Business Continuity Services	30	16	35	41	47	54	61	68	14
Other Professional Services	90	14	103	116	132	152	175	203	15
Total Customer Services	1,775	3	1,833	1,894	1,963	2,029	2,102	2,187	4

Source: INPUT

Exhibit V-34

Customer Services Market Forecast, Switzerland 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	661	-1	654	654	654	635	616	597	-2
Environmental Services	539	6	571	600	630	668	708	750	6
Systems Software Support	96	4	99	102	107	115	123	132	6
Education & Training	143	4	149	154	160	168	176	187	5
Business Continuity Services	26	16	30	35	41	47	53	59	14
Other Professional Services	78	14	89	101	115	132	152	176	15
Total Customer Services	1,543	3	1,594	1,647	1,707	1,764	1,828	1,902	4

Source: INPUT

Exhibit V-35

Customer Services Market Forecast, United Kingdom 1996-2001 (£ Millions)

Market Size £ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	1400	-6	1316	1224	1126	1036	953	867	-8
Environmental Services	980	8	1058	1143	1246	1371	1494	1628	9
Systems Software Support	300	4	312	328	344	361	376	387	4
Education & Training	210	7	225	243	260	275	292	306	6
Business Continuity Services	130	16	151	179	211	247	287	333	17
Other Professional Services	240	18	283	334	388	450	513	584	16
Total Customer Services	3,260	3	3,345	3,451	3,575	3,740	3,914	4,106	4

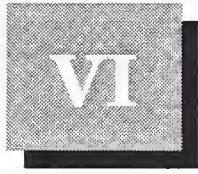
Source: INPUT

Exhibit V-36

Customer Services Market Forecast, United Kingdom 1996-2001 (US\$ Millions)

Market Size US\$ Millions									
Service Sector	1995	95-96 (%)	1996	1997	1998	1999	2000	2001	96-2001 CAGR (%)
Equipment Maintenance	2174	-6	2043	1900	1748	1609	1480	1347	-8
Environmental Services	1522	8	1643	1775	1935	2128	2320	2528	9
Systems Software Support	466	4	484	509	534	561	583	601	4
Education & Training	326	7	349	377	403	427	453	476	6
Business Continuity Services	202	16	234	278	328	384	446	517	17
Other Professional Services	373	18	440	519	602	698	796	907	16
Total Customer Services	5,062	3	5,194	5,358	5,551	5,807	6,077	6,376	4

Source: INPUT



Competitive Analysis

This chapter contains estimates of the revenues of the leading customer services vendors in each of 16 individual European country markets, plus Eastern Europe. It also contains a detailed analysis of the revenues of the top 20 customer services vendors in Europe, broken down by country and service sector.

A

Vendor Rankings by Country

This section contains vendor rankings for Europe as a whole, for each of 16 Western European countries, plus Central and Eastern Europe (as a single group).

The analysis for each country gives the revenues of the top 10 vendors analysed by service sector. In addition, for Europe and the leading five countries, a further analysis shows how the remainder of the market is divided between the five principal vendor types:

- Equipment vendors
- Independent maintenance organisations (IMOs)
- Dealers, distributors and Value-added resellers (VARs)
- Independent software and services vendors (ISVs)
- Non-IT industry vendors (mainly construction and building services vendors).

Exhibits VI-1 to VI-6 present the detailed analyses for Europe and the leading five countries (France, Germany, UK, Italy and Netherlands). Thereafter, countries are presented in alphabetical order (Exhibits VI-7 to VI-18).

Exhibit VI-1

Customer Services Revenues, 1995 Europe (\$ Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	IBM	2250	510	0	280	130	90	3260
2	Digital	1390	130	458	60	373	20	2430
3	Siemens-Nixdorf	1225	195	366	235	127	75	2225
4	Hewlett-Packard	500	130	267	0	0	45	942
5	Olivetti	485	155	60	40	200	0	940
6	Bull	700	85	65	0	85	0	930
7	ICL Sorbus	590	10	45	35	181	10	870
8	Unisys	355	105	125	70	55	35	745
9	AT&T (NCR)	465	65	50	0	60	0	640
10	Getronics	255	90	55	20	90	35	545
11	ICG	350	0	0	0	0	0	350
12	CompuNet	160	0	38	15	40	0	253
13	Granada	185	5	5	0	10	35	240
14	Rank Xerox	207	26	0	0	0	0	233
15	Sun Microsystems	108	24	48	22	27	0	230
16	StorageTek	166	10	18	2	10	0	200
17	Wang	100	20	20	10	35	10	195
18	Amdahl	124	8	11	9	35	4	191
19	Thomainfor	105	30	5	0	40	0	180
20	Comparex	80	17	16	16	21	15	160
	Top 20	9800	1615	1652	814	1519	374	15758
	Other Equipment Vendors	2156	225	41	131	59	14	2613
	Other IMOs	873	112	29	27	82	6	1156
	VARs	551	55	62	46	35	0	749
	ISVs	155	202	468	2135	60	318	3338
	Non-Industry Vendors	5	6816	0	0	7	0	6829
	TOTAL MARKET (Rounded)	13,540	9,020	2,250	3,150	1,760	710	30,440

Source: INPUT

Exhibit VI-2

Customer Services Revenues, 1995 France (FF Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	IBM	1990	440	0	259	93	68	2851
2	Bull	1741	103	127	0	166	0	2137
3	Digital	870	83	303	49	166	15	1487
4	HP	513	88	386	0	0	34	1022
5	SNi	440	78	161	98	78	24	880
6	Thommainfor	401	108	29	0	181	0	719
7	Unisys	196	68	83	49	34	29	460
8	Olivetti	235	83	15	15	108	0	455
9	AT&T (NCR)	367	54	29	0	5	0	455
10	Allium	179	52	0	87	79	0	397
	Top 10	6932	1157	1134	557	911	171	10862
	Other Equipment Vendors	3213	315	338	164	122	37	4188
	Other IMO's	1217	120	16	7	30	24	1415
	VARs	243	144	40	20	45	0	492
	ISVs	195	23	374	3155	11	448	4205
	Non-Industry Vendors	0	6241	0	0	30	0	6271
	TOTAL MARKET (Rounded)	11,800	8,000	1,900	3,900	1,150	680	27,430

Source: INPUT

Exhibit VI-3

Customer Services Revenues, 1995 Germany (DM Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	SNI	1094	110	315	72	72	87	1749
2	IBM	821	189	0	92	41	21	1164
3	Digital	415	41	100	0	79	6	641
4	CompuNet	229	0	54	21	57	0	362
5	HP	142	54	86	0	0	16	297
6	Unisys	83	29	30	17	16	10	184
7	AT&T (NCR)	120	7	14	0	30	0	172
8	Bull	80	37	7	0	16	0	140
9	Comparex	73	16	13	16	19	3	139
10	StorageTek	69	4	7	1	4	0	86
	Top 10	3125	488	626	219	333	143	4934
	Other Equipment Vendors	525	213	16	78	19	15	866
	Other IMO's	166	35	2	10	8	5	226
	VARs	153	35	11	20	34	0	253
	ISVs	31	0	91	873	12	78	1085
	Non-Industry Vendors	0	2079	0	0	14	0	2093
	TOTAL MARKET (Rounded)	4,000	2,850	745	1,200	420	240	9,460

Source: INPUT

Exhibit VI-4

Customer Services Revenues, 1995 United Kingdom (£ Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	ICL Sorbus	218	3	16	13	67	3	320
2	Digital	174	11	67	6	56	3	317
3	IBM	189	31	0	30	12	19	280
4	HP	32	14	55	0	0	7	108
5	Unisys	49	16	19	10	8	5	107
6	Granada	64	1	1	0	4	15	84
7	SNI	32	12	11	3	6	3	67
8	Bull	48	2	8	0	6	0	64
9	AT&T (NCR)	48	10	3	0	0	0	61
10	Amdahl	30	5	3	3	8	1	48
	Top 10	883	104	181	64	167	57	1456
	Other Equipment Vendors	243	61	15	13	23	17	373
	Other IMO's	217	18	14	9	9	10	277
	VARs	41	9	11	15	8	0	83
	ISVs	16	0	79	110	26	47	277
	Non-Industry Vendors	0	788	0	0	6	0	794
	TOTAL MARKET (Rounded)	1,400	980	300	210	240	130	3,260

Source: INPUT

Exhibit VI-5

Customer Services Revenues, 1995 Italy (Lira Billions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Olivetti	415	143	24	24	151	0	757
2	IBM	491	134	0	78	29	17	749
3	Digital	148	16	48	6	24	2	243
4	Bull	129	19	6	0	11	0	165
5	SNI	76	24	32	5	8	0	145
6	Unisys	45	16	21	10	10	6	107
7	AT&T (NCR)	64	13	2	0	11	0	89
8	Infocamere	87	0	0	0	0	0	87
9	HP	48	14	14	0	0	6	83
10	StorageTek	45	3	5	0	3	0	56
	Top 10	1547	382	151	122	246	32	2480
	Other Equipment Vendors	230	41	27	25	23	2	348
	Other IMOs	258	11	5	3	5	5	287
	VARs	350	44	5	3	6	0	408
	ISVs	14	26	91	273	9	27	441
	Non-Industry Vendors	0	755	0	3	0	0	758
	TOTAL MARKET (Rounded)	2,400	1,260	280	430	290	65	4,720

Source: INPUT

Exhibit VI-6

Customer Services Revenues, 1995 Netherlands (Dfl Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Getronics	333	117	69	27	117	27	690
2	Digital	163	14	69	14	72	3	336
3	IBM	186	67	0	26	24	18	320
4	SNI	53	16	14	3	8	0	94
5	Olivetti	32	13	8	8	21	0	82
6	HP	54	8	8	0	0	3	74
7	Unisys	35	8	11	6	5	3	69
8	Bull	40	5	5	0	3	0	53
9	Triple P	33	1	5	0	2	1	42
10	ICL Sorbus	26	0	2	2	8	0	37
	Top 10	955	249	191	86	260	55	1796
	Other Equipment Vendors	333	35	29	22	35	3	458
	Other IMO's	93	13	5	3	7	2	122
	VARs	33	8	17	7	3	0	69
	ISVs	17	6	43	266	24	6	363
	Non-Industry Vendors	0	714	0	0	0	0	714
	TOTAL MARKET (Rounded)	1,430	1,030	285	385	330	65	3,520

Source: INPUT

Exhibit VI-7

Customer Services Revenues, 1995 Austria (Sch Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	SNI	545	111	162	101	91	0	1010
2	Digital	596	30	152	40	101	0	919
3	IBM	535	101	0	30	30	10	707
4	Unisys	131	30	30	20	10	10	232
5	HP	131	30	20	0	0	10	192
6	Bull	111	10	10	0	10	0	141
7	Olivetti	81	20	10	0	20	0	131
8	Comparex	51	10	20	10	20	20	131
9	Thomainfor	51	10	0	0	10	0	71
10	Rank Xerox	40	10	0	0	0	0	51
	Top 10	2,273	364	404	202	293	51	3,586
	TOTAL MARKET (Rounded)	2,840	1,850	450	440	310	75	5,965

Source: INPUT

Exhibit VI-8

Customer Services Revenues, 1995 Belgium (BF Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Digital	1882	206	529	88	353	59	3116
2	SNI	1882	441	353	59	294	0	3028
3	IBM	1676	412	0	206	88	59	2440
4	Unisys	706	206	265	176	88	59	1499
5	Getronics	617	206	118	59	206	59	1264
6	Olivetti	500	118	235	88	235	0	1176
7	HP	735	118	118	0	0	29	1000
8	Bull	706	88	88	0	59	0	941
9	AT&T (NCR)	323	59	59	0	59	0	500
10	Granada	235	0	0	0	0	29	265
	Top 10	9,261	1,852	1,764	676	1,382	294	15,229
	TOTAL MARKET (Rounded)	12,600	7,000	1,990	2,500	1,560	334	25,980

Source: INPUT

Exhibit VI-9

Customer Services Revenues, 1995 Denmark (DK Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	IBM	388	100	0	28	17	6	537
2	Digital	100	22	66	6	66	0	260
3	Olivetti	78	6	11	0	61	0	155
4	Kommunedata	0	0	90	60	0	0	150
5	ICL Sorbus	100	0	6	6	33	0	144
6	SNI	78	33	22	0	11	0	144
7	AT&T (NCR)	61	11	11	0	11	0	94
8	HP	61	11	11	0	0	6	89
9	Bull	33	0	11	0	17	0	61
10	Telenor Comma (ND)	44	3	3	1	4	0	55
	Top 10	942	186	231	100	220	11	1,690
	TOTAL MARKET (Rounded)	1,700	1,400	250	285	255	25	3,915

Source: INPUT

Exhibit VI-10

Customer Services Revenues, 1995 Eastern Europe (\$ Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Digital	28	7	1	1	18	0	55
2	IBM	25	2	0	2	10	0	39
3	AT&T (NCR)	17	6	2	0	5	0	30
4	Unisys	10	2	3	2	1	1	19
5	ICL Sorbus	9	0	1	1	3	0	14
6	Olivetti	6	2	0	0	3	0	11
7	Rank Xerox	4	1	0	0	0	0	5
8	Bull	2	1	0	0	1	0	4
9	HP	1	1	0	0	0	0	2
10	Tandem	2	0	0	0	0	0	2
	Top 10	104	22	7	6	41	1	181
	TOTAL MARKET (Rounded)	220	60	14	48	45	4	348

Source: INPUT

Exhibit VI-11

Customer Services Revenues, 1995 Finland (FM Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	ICL Sorbus	230	4	17	13	52	4	321
2	Digital	91	9	61	4	26	0	191
3	IBM	122	35	0	9	4	4	174
4	HP	39	39	4	0	0	4	87
5	AT&T (NCR)	48	9	9	0	4	0	69
6	Olivetti	4	0	0	4	43	0	52
7	Tieto	0	0	13	9	9	4	35
8	Unisys	17	4	4	4	0	0	30
9	Nexor Perinet AB	20	0	0	0	0	0	20
10	ComputerVision	13	0	0	0	0	0	13
	Top 10	585	100	109	43	139	17	992
	TOTAL MARKET (Rounded)	960	670	155	150	145	60	2,140

Source: INPUT

Exhibit VI-12

Customer Services Revenues, 1995 Greece (Dra Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	IBM	2844	474	0	237	0	0	3555
2	Digital	1422	0	474	474	474	0	2844
3	Olivetti	1185	0	0	0	0	0	1185
4	Bull	711	0	0	0	0	0	711
5	ICL Sorbus	237	237	0	0	0	0	474
6	HP	237	237	0	0	0	0	474
7	ComputerVision	237	0	0	0	0	0	237
8	Wang	237	0	0	0	0	0	237
9	SNI	237	0	0	0	0	0	237
10	Unisys	237	0	0	0	0	0	237
	Top 10	7,584	948	474	711	474	0	10,191
	TOTAL MARKET (Rounded)	8,100	1,050	1,720	1,900	750	200	13,720

Source: INPUT

Exhibit VI-13

Customer Services Revenues, 1995 Ireland (IR £ Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Digital	8	2	4	1	6	1	22
2	Unisys	6	1	1	1	1	1	10
3	HP	6	1	1	0	0	1	9
4	IBM	6	2	0	1	1	0	9
5	ICL Sorbus	3	0	0	0	1	0	4
6	Rank Xerox	2	1	0	0	0	0	3
7	Telenor Comma (ND)	2	0	0	0	0	0	2
8	Tandem	1	0	0	0	0	0	1
9	ComputerVision	1	0	0	0	0	0	1
10	Wang	1	0	0	0	0	0	1
	Top 10	36	8	7	2	9	2	63
	TOTAL MARKET (Rounded)	48	25	15	10	15	5	120

Source: INPUT

Exhibit VI-14

Customer Services Revenues, 1995 Norway (NK Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Telenor Comma (ND)	369	23	23	9	37	0	461
2	IBM	259	63	0	19	6	13	360
3	Digital	82	13	38	6	19	0	158
4	SNI	76	32	25	0	13	0	145
5	AT&T (NCR)	70	13	13	0	6	0	101
6	Olivetti	57	6	6	0	19	0	88
7	Bull	44	0	13	0	19	0	76
8	HP	51	0	13	0	0	6	70
9	Unisys	32	6	6	6	6	0	57
10	ICL Sorbus	32	0	0	0	13	0	44
	Top 10	1,071	156	137	41	138	19	1,561
	TOTAL MARKET (Rounded)	1,750	1,130	240	365	175	70	3,720

Source: INPUT

Exhibit VI-15

Customer Services Revenues, 1995 Portugal (Esc Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Digital	1937	149	447	149	745	0	3427
2	Unisys	1341	298	298	149	149	149	2384
3	IBM	1639	149	0	149	149	0	2086
4	HP	1043	0	298	0	0	149	1490
5	Olivetti	745	298	0	0	298	0	1341
6	ICL Sorbus	894	0	0	0	298	0	1192
7	Rank Xerox	447	0	0	0	0	0	447
8	ComputerVision	149	0	0	0	0	0	149
9	SNI	149	0	0	0	0	0	149
10	Wang	149	0	0	0	0	0	149
	Top 10	8,493	894	1,043	447	1,639	298	12,814
	TOTAL MARKET (Rounded)	12,900	5,500	1,100	1,000	1,660	360	22,520

Source: INPUT

Exhibit VI-16

Customer Services Revenues, 1995 Spain (Ptas Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	IBM	11011	2783	0	1331	484	242	15851
2	Digital	6776	605	1815	242	1452	0	10890
3	HP	7623	968	968	0	0	484	10043
4	SNI	3993	968	1331	363	605	0	7260
5	AT&T (NCR)	4719	121	484	0	605	0	5929
6	Bull	3267	1089	363	0	484	0	5203
7	Eltec	4235	484	9	9	9	0	4747
8	Olivetti	2057	484	484	242	1089	0	4356
9	Getronics	1694	484	242	121	484	484	3509
10	Unisys	1815	484	484	242	242	121	3388
	Top 10	47,190	8,470	6,180	2,550	5,454	1,331	71,176
	TOTAL MARKET (Rounded)	73,800	43,500	9,600	8,600	6,440	1,800	143,740

Source: INPUT

Exhibit VI-17

Customer Services Revenues, 1995 Sweden (SK Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Digital	471	27	172	20	113	0	802
2	IBM	524	80	0	27	20	13	663
3	ICL Sorbus	252	7	20	13	80	7	378
4	Nexor Perinet AB	238	0	0	0	0	0	238
5	WM-Data	237	0	0	0	0	0	237
6	SNI	106	33	46	20	20	0	225
7	Unisys	86	20	20	13	7	7	152
8	HP	80	20	20	0	0	7	126
9	AT&T (NCR)	73	13	13	0	20	0	119
10	Bull	60	0	13	0	20	0	93
	Top 10	2,126	199	305	93	278	33	3,034
	TOTAL MARKET (Rounded)	3,650	2,610	420	750	430	120	7,980

Source: INPUT

Exhibit VI-18

Customer Services Revenues, 1995 Switzerland (SF Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	Digital	112	10	35	10	35	2	204
2	IBM	85	14	0	15	5	2	121
3	AT&T (NCR)	82	8	14	0	9	0	113
4	SNI	46	12	14	5	7	0	83
5	Unisys	24	7	8	5	3	2	49
6	HP	29	5	5	0	0	1	39
7	Olivetti	9	2	5	1	7	0	24
8	Bull	16	1	2	0	3	0	23
9	Itris Maintenance	19	1	1	0	1	0	21
10	Wang	12	2	3	1	2	0	21
	Top 10	433	61	86	37	72	8	697
	TOTAL MARKET (Rounded)	760	620	110	165	90	30	1,775

Source: INPUT

B

Revenue Analysis of Top 20 European Customer Services Vendors

This section contains estimates of the 1995 revenues of the leading 20 customer services vendors in Europe. Each vendor's revenues (in \$ millions) are analysed by service sector and by country.

Vendors are presented in alphabetical order for ease of reference, though the ranking position of each vendor in the top 20 list is indicated in the title of the appropriate exhibit. Refer to Exhibit VI-1 for the complete top 20 list.

Note that ICG, the International Computer Group, is ranked 11th in the top 20 list of customer services vendors. However, this section does not contain a detailed analysis for this organisation, which is a joint venture between a number of national service organisations. INPUT records the revenues of the ICG member organisations at the country level, but reflects the combined group revenues at the European level only.

Note, however, that the revenues for German vendor CompuNet (an ICG member) are listed separately here, because of the significant revenue contribution made by that organisation to the overall market.

Exhibit VI-19

(No. 18) Amdahl — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	124	8	11	9	35	4	191
France	20	0	2	2	5	0	29
Germany	28	0	2	2	9	2	43
U.K.	46	7	4	4	12	2	75
Italy	6	0	1	0	2	0	9
Netherlands	5	0	0	0	1	0	6
Belgium/Lux'	5	0	0	0	1	0	6
Spain	1	0	0	0	0	0	1
Switzerland	3	0	0	0	1	0	4
Austria	1	0	0	0	0	0	1
Sweden	1	0	0	0	0	0	1
Denmark	4	0	0	0	1	0	5
Norway	3	0	0	0	1	0	4
Finland	0	0	0	0	0	0	0
Ireland	1	0	0	0	0	0	1
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Exhibit VI-20

(No. 9) AT&T (NCR) — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	465	65	50	0	60	0	640
France	75	11	6	0	1	0	93
Germany	84	5	10	0	21	0	120
U.K.	75	15	4	0	0	0	94
Italy	40	8	1	0	7	0	56
Netherlands	11	2	2	0	4	0	19
Belgium/Lux'	11	2	2	0	2	0	17
Spain	39	1	4	0	5	0	49
Switzerland	71	7	12	0	8	0	98
Austria	0	0	0	0	0	0	0
Sweden	11	2	2	0	3	0	18
Denmark	11	2	2	0	2	0	17
Norway	11	2	2	0	1	0	16
Finland	11	2	2	0	1	0	16
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	17	6	2	0	5	0	30

Source: INPUT

Exhibit VI-21

(No. 6) Bull — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	700	85	65	0	85	0	930
France	356	21	26	0	34	0	437
Germany	56	26	5	0	11	0	98
U.K.	74	3	12	0	10	0	99
Italy	81	12	4	0	7	0	104
Netherlands	25	3	3	0	2	0	33
Belgium/Lux'	24	3	3	0	2	0	32
Spain	27	9	3	0	4	0	43
Switzerland	14	1	2	0	3	0	20
Austria	11	1	1	0	1	0	14
Sweden	9	0	2	0	3	0	14
Denmark	6	0	2	0	3	0	11
Norway	7	0	2	0	3	0	12
Finland	1	0	0	0	0	0	1
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	3	0	0	0	0	0	3
Eastern Europe	2	1	0	0	1	0	4

Source: INPUT

Exhibit VI-22

(No. 20) Comparex — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	80	17	16	16	21	15	160
France	4	2	2	2	2	3	15
Germany	51	11	9	11	13	2	97
U.K.	5	1	2	1	3	2	14
Italy	1	0	0	0	0	2	3
Netherlands	2	0	0	0	0	1	3
Belgium/Lux'	2	0	0	0	0	1	3
Spain	3	0	0	0	0	1	4
Switzerland	2	0	0	0	0	1	3
Austria	5	1	2	1	2	2	13
Sweden	1	0	0	0	0	0	1
Denmark	1	0	0	0	0	0	1
Norway	1	0	0	0	0	0	1
Finland	0	0	0	0	0	0	0
Ireland	1	0	0	0	0	0	1
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	1	0	0	0	0	0	1

Source: INPUT

Exhibit VI-23

(No. 12) CompuNet — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	160	0	38	15	40	0	253
France	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
U.K.	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Belgium/Lux'	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Austria	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Exhibit VI-24

(No. 2) Digital — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	1,390	130	458	60	373	20	2,430
France	178	17	62	10	34	3	304
Germany	290	29	70	0	55	4	448
U.K.	270	17	104	9	87	5	492
Italy	93	10	30	4	15	1	153
Netherlands	102	9	43	9	45	2	210
Belgium/Lux'	64	7	18	3	12	2	106
Spain	56	5	15	2	12	0	90
Switzerland	97	9	30	9	30	2	177
Austria	59	3	15	4	10	0	91
Sweden	71	4	26	3	17	0	121
Denmark	18	4	12	1	12	0	47
Norway	13	2	6	1	3	0	25
Finland	21	2	14	1	6	0	44
Ireland	13	4	7	1	10	1	36
Portugal	13	1	3	1	5	0	23
Greece	6	0	2	2	2	0	12
Eastern Europe	28	7	1	1	18	0	55

Source: INPUT

Exhibit VI-25

(No. 10) Getronics — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	255	90	55	20	90	35	545
France	3	0	0	0	0	0	3
Germany	3	4	2	1	1	4	15
U.K.	3	1	1	1	1	3	10
Italy	0	0	0	0	0	0	0
Netherlands	208	73	43	17	73	17	431
Belgium/Lux'	21	7	4	2	7	2	43
Spain	14	4	2	1	4	4	29
Switzerland	2	1	0	0	0	1	4
Austria	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0
Denmark	1	0	0	0	3	0	4
Norway	1	0	0	0	0	0	1
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	1	0	0	0	0	0	1
Greece	0	0	0	0	0	0	0
Eastern Europe	1	0	0	0	0	0	1

Source: INPUT

Exhibit VI-26

(No. 13) Granada — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	185	5	5	0	10	35	240
France	16	1	1	0	1	1	20
Germany	18	1	1	0	2	2	24
U.K.	99	2	1	0	6	23	131
Italy	14	0	0	0	0	2	16
Netherlands	8	0	0	0	0	1	9
Belgium/Lux'	8	0	0	0	0	1	9
Spain	12	0	0	0	0	2	14
Switzerland	9	0	0	0	0	1	10
Austria	0	0	0	0	0	0	0
Sweden	2	0	0	0	0	0	2
Denmark	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Exhibit VI-27

(No. 4) Hewlett Packard — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	500	130	267	0	0	45	942
France	105	18	79	0	0	7	209
Germany	99	38	60	0	0	11	208
U.K.	50	22	85	0	0	11	168
Italy	30	9	9	0	0	4	52
Netherlands	34	5	5	0	0	2	46
Belgium/Lux'	25	4	4	0	0	1	34
Spain	63	8	8	0	0	4	83
Switzerland	25	4	4	0	0	1	34
Austria	13	3	2	0	0	1	19
Sweden	12	3	3	0	0	1	19
Denmark	11	2	2	0	0	1	16
Norway	8	0	2	0	0	1	11
Finland	9	9	1	0	0	1	20
Ireland	10	2	2	0	0	1	15
Portugal	7	0	2	0	0	1	10
Greece	1	1	0	0	0	0	2
Eastern Europe	1	1	0	0	0	0	2

Source: INPUT

Exhibit VI-28

(No. 1) IBM — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	2,250	510	0	280	130	90	3,260
France	407	90	0	53	19	14	583
Germany	574	132	0	64	29	15	814
U.K.	293	48	0	46	18	30	435
Italy	309	84	0	49	18	11	471
Netherlands	116	42	0	16	15	11	200
Belgium/Lux'	57	14	0	7	3	2	83
Spain	91	23	0	11	4	2	131
Switzerland	74	12	0	13	4	2	105
Austria	53	10	0	3	3	1	70
Sweden	79	12	0	4	3	2	100
Denmark	70	18	0	5	3	1	97
Norway	41	10	0	3	1	2	57
Finland	28	8	0	2	1	1	40
Ireland	9	4	0	1	1	0	15
Portugal	11	1	0	1	1	0	14
Greece	12	2	0	1	0	0	15
Eastern Europe	25	2	0	2	10	0	30

Source: INPUT

Exhibit VI-29

(No. 7) ICL Sorbus — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	590	10	45	35	181	10	870
France	43	1	3	3	13	1	64
Germany	29	0	2	2	9	0	42
U.K.	338	5	25	20	104	5	497
Italy	8	0	1	1	3	0	13
Netherlands	16	0	1	1	5	0	23
Belgium/Lux'	3	0	0	0	1	0	4
Spain	12	0	1	1	4	0	18
Switzerland	6	0	0	0	2	0	8
Austria	3	0	0	0	1	0	4
Sweden	38	1	3	2	12	1	57
Denmark	18	0	1	1	6	0	26
Norway	5	0	0	0	2	0	7
Finland	53	1	4	3	12	1	78
Ireland	5	0	0	0	2	0	7
Portugal	6	0	0	0	2	0	8
Greece	1	1	0	0	0	0	2
Eastern Europe	9	0	1	1	3	0	14

Source: INPUT

Exhibit VI-30

(No. 5) Olivetti — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	485	155	60	40	200	0	940
France	48	17	3	3	22	0	93
Germany	24	5	8	5	6	0	48
U.K.	41	14	5	2	5	0	67
Italy	261	90	15	15	95	0	501
Netherlands	20	8	5	5	13	0	51
Belgium/Lux'	17	4	8	3	8	0	40
Spain	17	4	4	2	9	0	36
Switzerland	8	2	4	1	6	0	21
Austria	8	2	1	0	2	0	13
Sweden	4	1	1	1	4	0	11
Denmark	14	1	2	0	11	0	28
Norway	9	1	1	0	3	0	14
Finland	1	0	0	1	10	0	12
Ireland	0	0	0	0	0	0	0
Portugal	5	2	0	0	2	0	9
Greece	5	0	0	0	0	0	5
Eastern Europe	6	2	0	0	3	0	11

Source: INPUT

Exhibit VI-31

(No. 14) Rank Xerox — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	207	26	0	0	0	0	233
France	49	6	0	0	0	0	55
Germany	29	4	0	0	0	0	33
U.K.	50	6	0	0	0	0	56
Italy	15	2	0	0	0	0	17
Netherlands	9	1	0	0	0	0	10
Belgium/Lux ¹	5	1	0	0	0	0	6
Spain	10	1	0	0	0	0	11
Switzerland	6	1	0	0	0	0	7
Austria	4	1	0	0	0	0	5
Sweden	5	1	0	0	0	0	6
Denmark	6	1	0	0	0	0	7
Norway	4	0	0	0	0	0	4
Finland	3	0	0	0	0	0	3
Ireland	4	1	0	0	0	0	5
Portugal	3	0	0	0	0	0	3
Greece	1	0	0	0	0	0	1
Eastern Europe	4	1	0	0	0	0	5

Source: INPUT

Exhibit VI-32

(No. 3) Siemens-Nixdorf — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	1,225	195	366	235	125	75	2,225
France	90	16	33	20	16	5	180
Germany	765	77	220	184	50	61	1357
U.K.	50	18	17	4	10	5	104
Italy	48	15	20	3	5	0	91
Netherlands	33	10	9	2	5	0	59
Belgium/Lux'	64	15	12	2	10	0	103
Spain	33	8	11	3	5	0	60
Switzerland	40	10	12	4	6	0	72
Austria	54	11	16	10	9	0	100
Sweden	16	5	7	3	3	0	34
Denmark	14	6	4	0	2	0	26
Norway	12	5	4	0	2	0	23
Finland	1	0	0	0	0	0	1
Ireland	1	0	0	0	0	0	1
Portugal	1	0	0	0	0	0	1
Greece	1	0	0	0	0	0	1
Eastern Europe	1	0	0	0	0	0	1

Source: INPUT

Exhibit VI-33

(No. 16) StorageTek — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	166	10	18	2	10	0	200
France	40	3	5	1	3	0	52
Germany	48	3	5	1	3	0	60
U.K.	24	2	3	0	2	0	31
Italy	28	2	3	0	2	0	35
Netherlands	3	0	0	0	0	0	3
Belgium/Lux'	2	0	0	0	0	0	2
Spain	3	0	0	0	0	0	3
Switzerland	2	0	0	0	0	0	2
Austria	2	0	0	0	0	0	2
Sweden	3	0	0	0	0	0	3
Denmark	3	0	0	0	0	0	3
Norway	3	0	0	0	0	0	3
Finland	2	0	0	0	0	0	2
Ireland	1	0	0	0	0	0	1
Portugal	1	0	0	0	0	0	1
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Exhibit VI-34

**(No. 15) Sun Microsystems — European Customer Services Revenues,
1995 (\$ Millions)**

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	108	24	48	22	27	0	230
France	27	6	18	6	8	0	65
Germany	25	6	9	6	6	0	52
U.K.	20	5	7	5	5	0	42
Italy	6	2	4	1	1	0	14
Netherlands	5	1	2	1	2	0	11
Belgium/Lux'	5	1	1	0	0	0	7
Spain	5	1	3	1	1	0	11
Switzerland	4	0	1	0	0	0	5
Austria	3	0	1	0	0	0	4
Sweden	1	0	1	0	2	0	4
Denmark	2	0	1	0	0	0	3
Norway	1	0	0	0	0	0	1
Finland	1	0	0	0	0	0	1
Ireland	1	0	0	0	0	0	1
Portugal	1	0	0	0	0	0	1
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Exhibit VI-35

(No. 19) Thomainfor — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	105	30	5	0	40	0	180
France	82	22	6	0	37	0	147
Germany	8	0	0	0	1	0	9
U.K.	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Belgium/Lux'	4	3	0	0	1	0	8
Spain	4	2	0	0	1	0	7
Switzerland	4	2	0	0	1	0	7
Austria	5	1	0	0	1	0	7
Sweden	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Exhibit VI-36

(No. 8) Unisys — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	355	105	125	70	55	35	745
France	40	14	17	10	7	6	94
Germany	58	20	21	12	11	7	129
U.K.	76	25	29	16	13	7	166
Italy	28	10	13	6	6	4	67
Netherlands	22	5	7	4	3	2	43
Belgium/Lux'	24	7	9	6	3	2	51
Spain	15	4	4	2	2	1	28
Switzerland	21	6	7	4	3	2	43
Austria	13	3	3	2	1	1	23
Sweden	13	3	3	2	1	1	23
Denmark	5	1	1	1	1	0	9
Norway	5	1	1	1	1	0	9
Finland	4	1	1	1	0	0	7
Ireland	9	2	2	1	1	1	16
Portugal	9	2	2	1	1	1	16
Greece	1	0	0	0	0	0	1
Eastern Europe	10	2	3	2	1	1	19

Source: INPUT

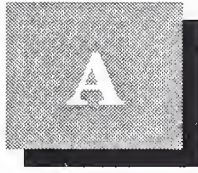
Exhibit VI-37

(No. 17) Wang — European Customer Services Revenues, 1995 (\$ Millions)

	Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	100	20	20	10	35	10	195
France	15	3	2	2	5	8	35
Germany	10	2	2	1	8	0	23
U.K.	21	4	3	2	6	0	36
Italy	9	1	1	1	3	0	15
Netherlands	9	2	2	1	4	0	18
Belgium/Lux'	4	1	2	0	1	0	8
Spain	7	1	2	1	1	0	12
Switzerland	10	2	3	1	2	0	18
Austria	1	0	0	0	0	0	1
Sweden	4	1	1	0	2	0	8
Denmark	2	0	0	0	0	0	2
Norway	1	0	0	0	0	0	1
Finland	2	0	0	0	0	0	2
Ireland	1	0	0	0	0	0	1
Portugal	1	0	0	0	0	0	1
Greece	1	0	0	0	0	0	1
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

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The Customer Services Market Defined

A

INPUT's View of the Customer Services Market

INPUT's view of the customer services market is illustrated in schematic form in Exhibit A-1. This exhibit illustrates the overall structure of the hardware products or equipment market for systems, and the relationship between customer services and the other segments of the equipment market.

Included within INPUT's definition of customer services are six service sectors:

- Equipment maintenance
- Environmental services
- Systems software support
- Education and training
- Professional services
- Business continuity services.

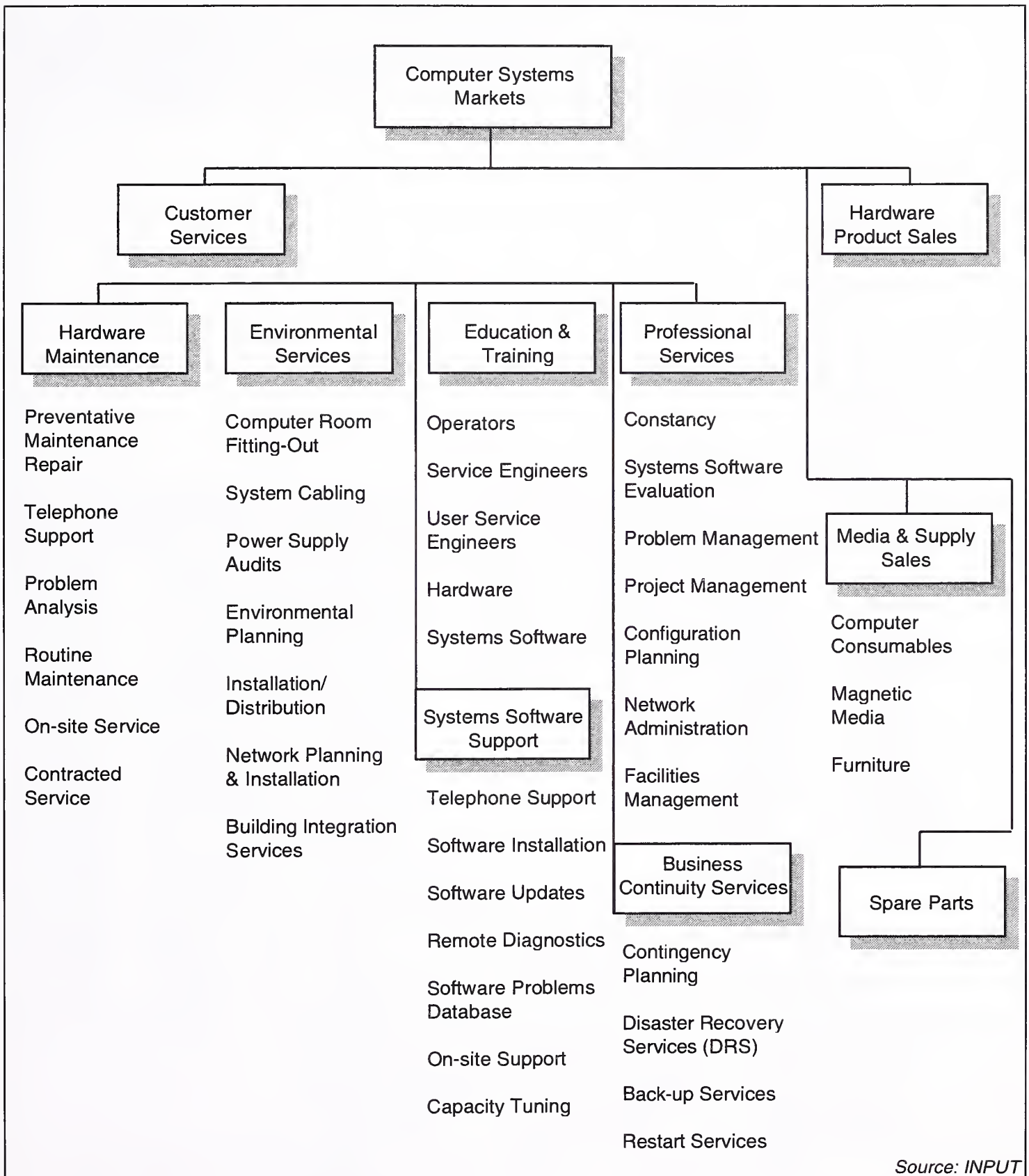
Excluded from INPUT's definition of the customer services market, as essentially product markets, are:

- Sales of spare parts

- Media and supplies sales
- Hardware product sales themselves.

Exhibit A-1 indicates the principal activities undertaken within each of the six service sectors. In each service sector, INPUT's definition of user expenditure includes only those services provided to users by an external organization on a chargeable basis. Services provided by subsidiaries or internal resources are considered unavailable for open tender. They are therefore excluded from the open market but included in the captive market potential.

Exhibit A-1

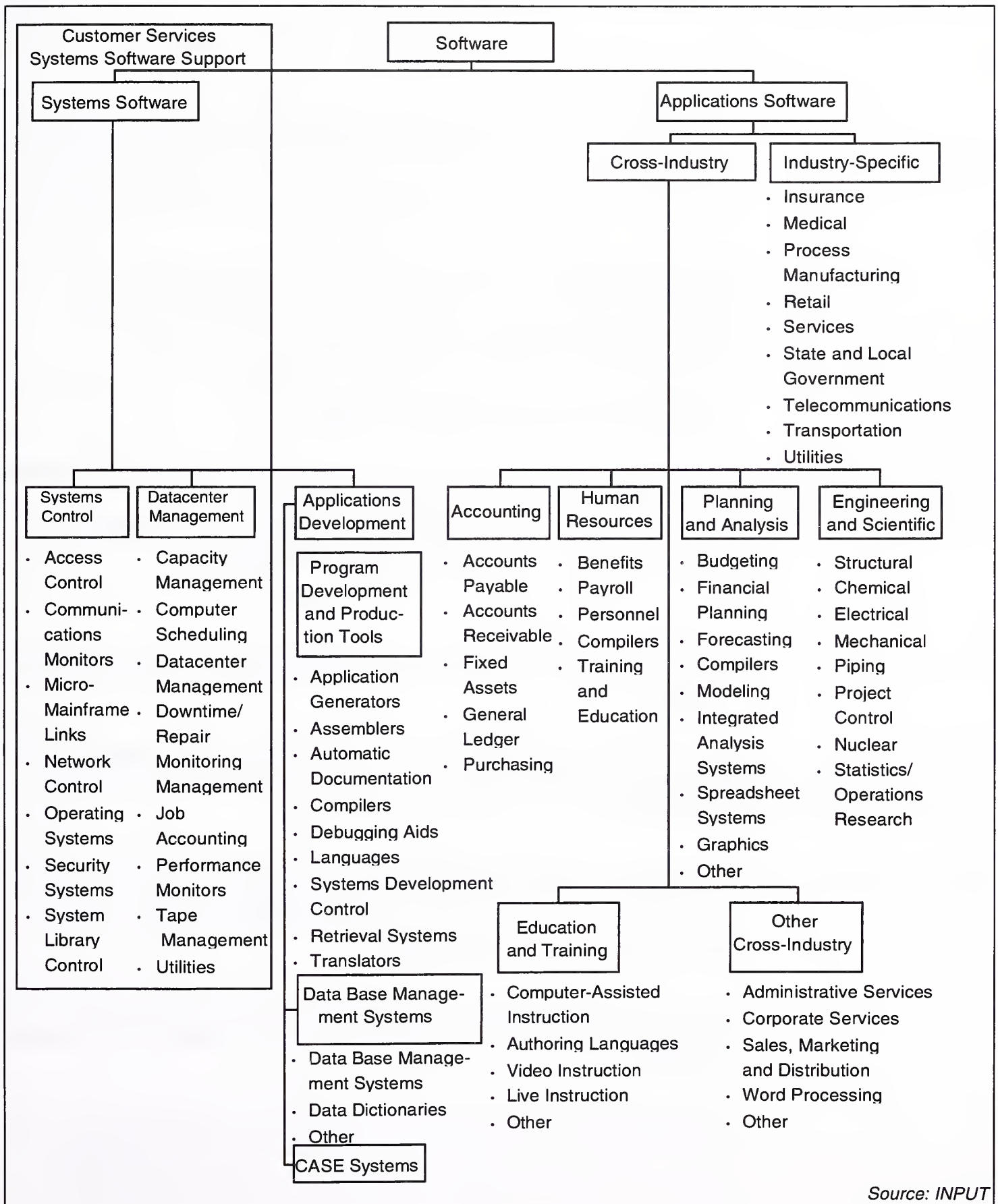
Customer Services Market Structure

Source: INPUT

Software support activities that are included in the customer services market are those activities related to the support of systems software. Exhibit A-2 illustrates INPUT's definition of the software products market. Aspects of software support included in the customer services market are restricted to those areas highlighted in the exhibit with the rectangular box. They relate to system control and data centre management software products.

Exhibit A-2

Software Products Market Structure



Source: INPUT

B

Customer Services Sectors

Customer services sectors are defined by INPUT as follows:

- **Equipment maintenance:** the repair or routine preventive maintenance of computer systems hardware or hardware components. Included are associated support activities such as telephone support, problem analysis and remote diagnostics. Contracts may be for one or more years; alternating repairs may be effected on an ad hoc basis.
- **Environmental services** are defined as all planning and implementation services which affect the environments in which computer platforms are expected to run. For these purposes, environment can mean any of the following:
 - The computer room fixtures and fittings
 - Cabling between computers and other devices in a system or network
 - Physical environment, such as: electrical power, air conditioning, water cooling, smoke or fire detection equipments
 - Network attachments
 - Buildings in which computers or network devices or terminals must reside.

Environmental services normally involve the installation, upgrade, repair or de-installation of some piece of equipment, but may be restricted to planning only.

- **Systems software service/support:** software maintenance activities that relate to systems software (not applications software). Included are associated support activities such as telephone support, problem analysis and software diagnostics.
- **Education and training:** all education and training expenditures for IT industry applications are included within the definition of customer services.
- **Professional services:** within the definition of customer services, this sector of the market refers only to those elements of professional services that are concerned with the support of the systems platform or network and its operating environment, including areas such as:

- Consultancy
- Network Administration
- System Software Evaluation
- Problems Management
- Project Management
- Configuration or Capacity Planning.

To distinguish them from environmental services, these professional services are normally restricted to planning, design or management services, without any installation of platform or ancillary equipment. It is important to acknowledge that these services are only part of the more widely defined professional services marketplace.

- **Business continuity services** include a number of service elements related to keeping a business running in the event of a major incident which temporarily puts its IT platform or network completely out of action. They include:
 - Planning for such a contingency
 - Disaster Recovery Services
 - Back-up services for magnetic or optical media
 - Restart services, covering all activities which contribute to reinstating on a permanent basis the platform or network which as suffered the major incident.

These services can be sold together in any combination or as free-standing services.

C

Customer Services Vendors

INPUT's definitions of the three primary categories of customer services vendor are as follows:

- **Equipment vendors** are defined as companies that manufacture computer hardware/equipment and may service equipment manufactured by themselves or other equipment manufacturers
- **Independent maintenance organisations (IMOs)** are defined as companies that service computer equipment and are independent of the manufacturer or agent who sold the equipment
- **Dealers and distributors** are defined as vendors that service equipment that is sold by them, either as an agent of the equipment manufacturer or as a value-added reseller (VAR).

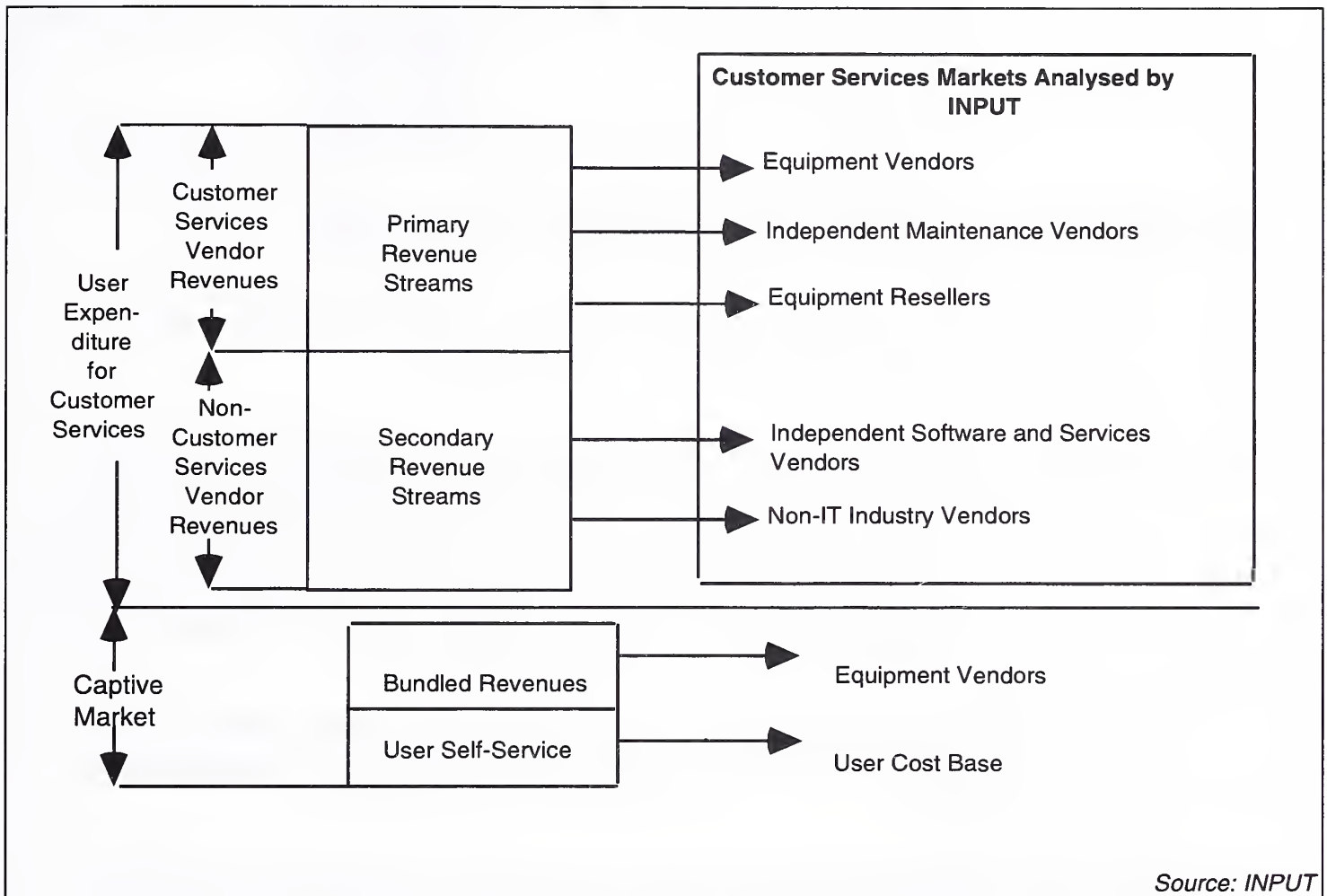
D

Customer Services Revenue Streams

Exhibit A-3 provides a diagrammatic representation of the total customer services market. This model indicates the captive and non-captive revenue components of the total customer services market and the various revenue streams that combine to form the total market.

Exhibit A-3

Customer Services Revenue Streams



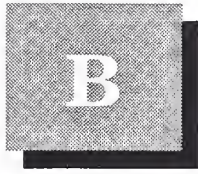
User expenditure for customer services forms that portion of the market where users are provided with vendor services for which they pay separately. This portion of the market sub-divides into two components:

- **Customer services vendor revenues.** This portion of the customer services market refers to vendors for whom customer services revenues are considered to be a primary revenue stream:
 - Equipment Vendors
 - Independent Maintenance Companies
 - The Dealer/Distributor portion of the indirect equipment resellers market.

- **Non-customer services vendor revenues** refer to user expenditure, for customer services, with vendors for whom customer services revenues are not considered to be a primary stream. This portion of the market results from the following activities:
 - The system integration (SI) and turnkey systems segments of the indirect equipment resellers market. In a minority of cases, these vendors provide service and support for the system platform
 - Software and services vendors whose primary source of revenue results from such items as custom software development will sometimes also provide systems support
 - Non-industry vendors such as building/construction companies or specialist product and building services companies that provide environmental services. Provision of these services is a secondary aspect to the vendor's main line of business; for example, a specialist air conditioning company might service many industry sectors, with systems for a whole range of applications besides computer room air-conditioning.

The captive portion of the customer services market relates to the provision of services for which the user does not pay separately. For example:

- Systems software support charges may be bundled as part of the software license fee rather than paid for separately by the user
- Users who wholly or partly provide their own customer services from the use of in-house resources. In this case the charges for services are accrued as an in-house cost and therefore do not result in external expenditure.



Market Forecast Reconciliation

INPUT's forecast for the customer services market in Europe focuses on user expenditure with:

- Customer services vendors, defined as:
 - Equipment vendors
 - Independent Maintenance Organisations (IMOs)
 - Dealers and distributors.
- Other vendors and organisations providing the services defined within the customer services sectors included in INPUT's forecasts. These other vendors comprise:
 - Independent software and services vendors
 - Non-industry vendors, principally from the construction and building services sectors.

There are no changes to definitions for the 1996 Customer Services Europe Programme.

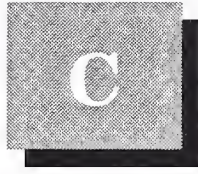
The effect of last year's changes on the market sector reconciliations are shown in Exhibit B-1.

Exhibit B-1

Customer Services Market Forecast Reconciliation by Service Sector

Delivery Mode	1995 Market				2000 Market			
	1995 Report (Fcst)	1996 Report (Act)	Variance (Amount)	Variance (%)	1995 Report (Fcst)	1996 Report (Fcst)	Variance (Amount)	Variance (%)
Equipment Maintenance	12,100	13,541	-1441	-12	9,700	10,843	-1143	-12
Environmental Services	7,110	9,025	-1915	-27	9,350	13,140	-3790	-41
Systems Software Support	1,580	2,252	-672	-43	1,960	2,939	-979	-50
Education & Training	2,420	3,153	-733	-30	2,990	4,424	-1434	-48
Business Continuity Services	420	712	-292	-69	880	1,458	-578	-66
Other Professional Services	1,025	1,761	-736	-72	1,790	3,545	-1755	-98
Total Customer Services	24,700	30,443	-5743	-23	26,700	36,350	-9650	-36

Source: INPUT



Exchange Rates and Inflation Assumptions

Exhibit C-1 shows the exchange rates used for all INPUT's European forecasts during 1996.

Exhibit C-1

US Dollar and ECU Exchange Rates: 1996

Country	Currency	US Dollar	ECU
Europe	\$	1	0.781
France	FF	4.89	6.27
Germany	DM	1.43	1.83
United Kingdom	PS	0.644	0.825
Italy	Lira (K)	1.59	2.03
Sweden	Sek	6.63	8.49
Denmark	DK	5.54	7.10
Norway	NK	6.32	8.09
Finland	FM	4.34	5.33
Netherlands	Dfl	1.6	2.05
Belgium	BF	29.4	37.70
Switzerland	SF	1.15	1.47
Austria	Sch	10.1	12.40
Spain	Ptas	121	155.00
Ireland	IP	0.624	0.800
Portugal	Esc	149	191.00
Greece	Dra	237	291.00
Eastern Europe	\$	1	0.781

Source: Financial Times January 1996

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